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SOAP

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"THE CLASS IN INSECTICIDES WILL NOW COME TO ODOR!

...and while we are on the subject of odor we might as well make it a good one. That, of course, brings us to GIVAUDAN-DELAWANNA, who specialize in good odors for insecticides, disinfectants and exterminating products of every description. Open your textbooks (this issue of SOAP) to pages 76 and 77 for today's lesson in salesmanship—HOW TO SELL BY SMELL!"

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when you sell these SAFE soaps

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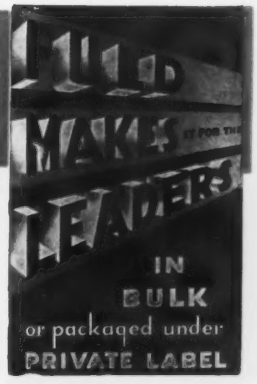

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AROMATICS FOR SOAP

SOAP

Reg. U. S. Patent Office

Volume XI
Number 6

June, 1935

SANITARY Products Section, which is included as a department of every issue of SOAP, begins on page 71. Production Section begins on page 59.

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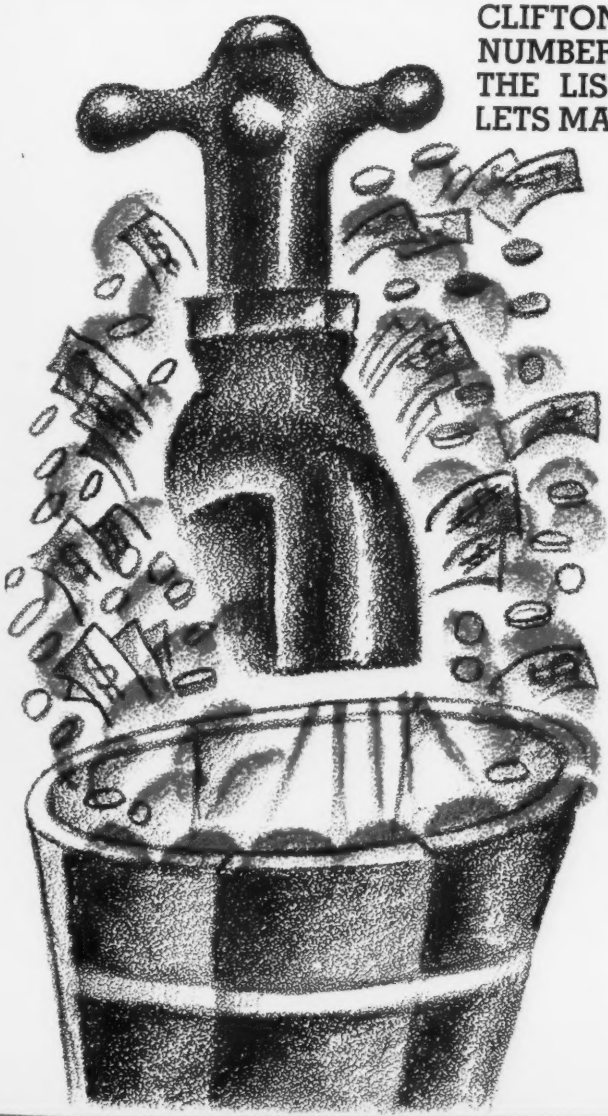

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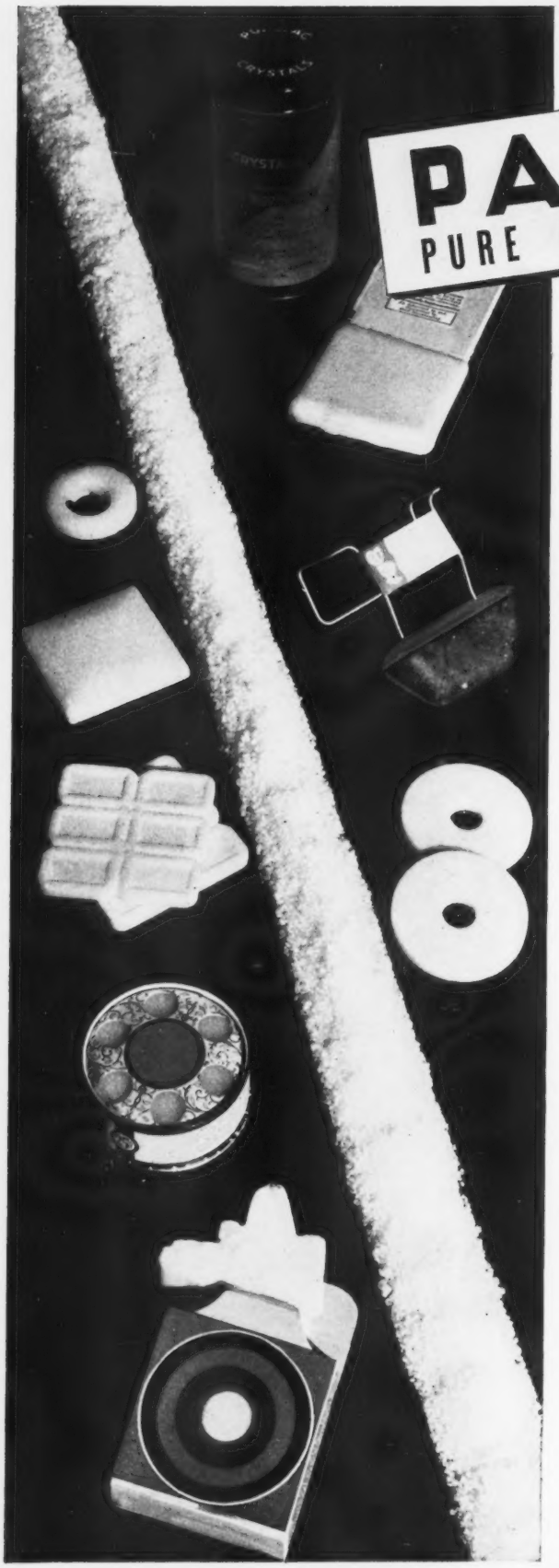

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Naugatuck Chemical

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consists of:

VIOLLYS A. B. 100%
VIOLLYS ALPHA BLANCHE
VIOLLYS BETA
VIOLLYS METHYL
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So that you may appreciate the intrinsic value of these six aromatics, Naugatuck will mail you a booklet in which the odor of each is classified and accompanied by *six different formulae* showing their use.

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Aromatic Chemicals — Natural Isolates — Perfume Oils — Artificial Flower and Flavor Oils

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PROVED BY USE—*Here are shown some of the prominent users who have recognized the advantages of this improved sealing method and adopted it for their products. This is no new or untried device but has been time-tested in actual use on hundreds of thousands of packages. Your product, too, can enjoy the benefits of this unusual sales aid.*

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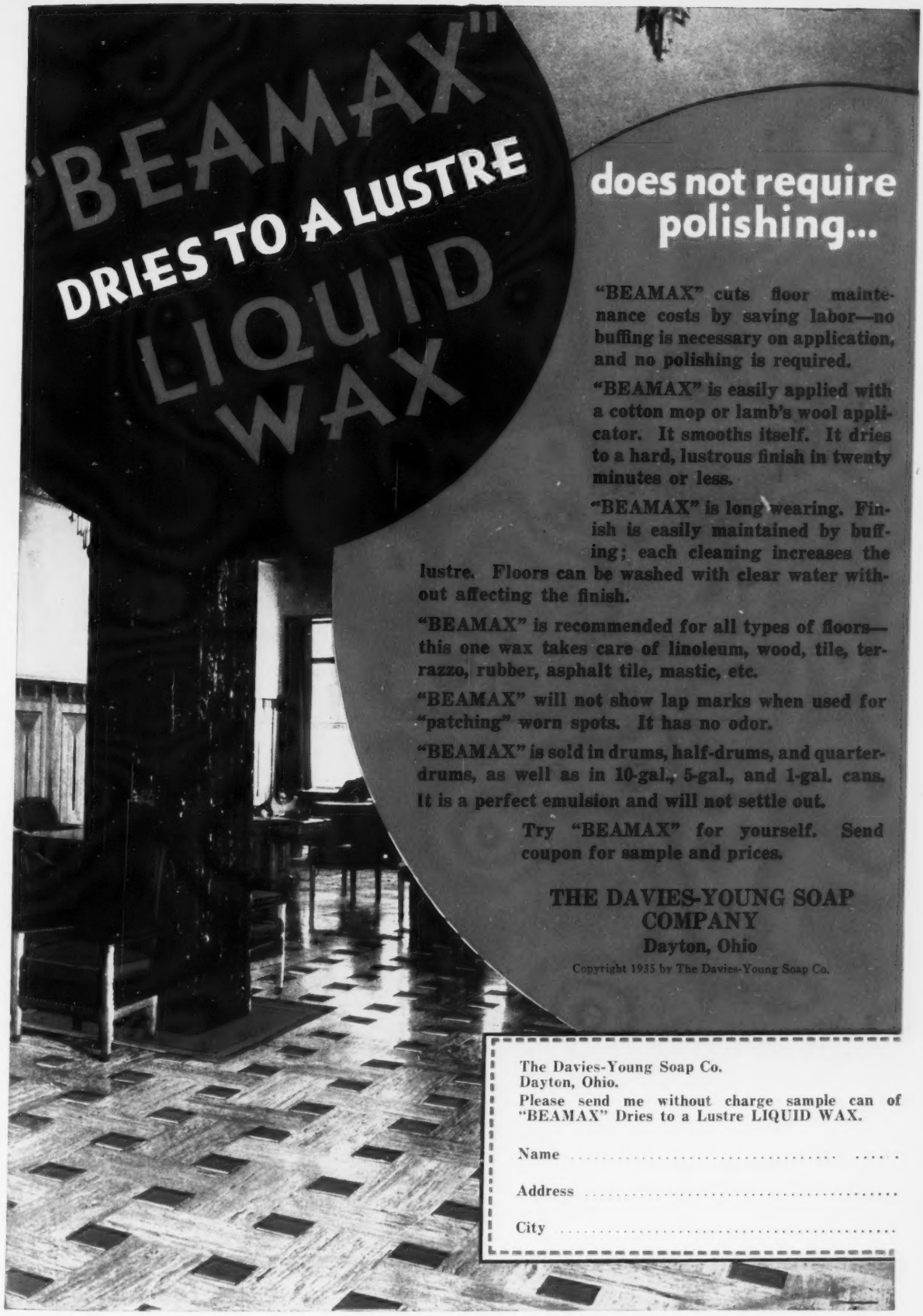
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does not require polishing...
"BEAMAX" cuts floor maintenance costs by saving labor—no buffing is necessary on application, and no polishing is required.
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Dayton, Ohio
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Dress up your product with Maryland Blue Bottles and Jars. The brilliant blue catches the customer's eye. Suggests quality. Makes the product easier to identify. Result—your product is seen, recognized and bought more frequently.

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FOR UNPLEASANT ODORS

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A Complete Publi
for the SOAP *and* SANITARY

"SOAP"

Soap is the only publication devoted exclusively to the soap and sanitary products industries—to the interests of those who manufacture soaps of all kinds, household insecticides, disinfectants, polishes, cleaners, floor specialties and related products and to those closely allied service groups, sanitary supply houses and exterminators. It is the one trade journal giving these industries a complete business paper service which includes special business and manufacturing articles dealing with a wide variety of subjects, a complete news and raw material market service, a record of all pertinent patents and trade marks, information on new products and packages, etc. Because the editorial section of the paper is confined exclusively to subjects of interest to these manufacturers and service organizations and does not ramble far afield to coax in stray advertising, a subscription is a good investment for any concern in the industry.

Of special interest to all companies selling to the soap and sanitary products industries is the fact that **Soap** is a member of the Audit Bureau of Circulations. Here advertisers and prospective advertisers get circulation facts—not unaudited and unsubstantiated publishers' statements.

In the ten years since the first issue of **Soap** was published (Sept., 1925) we believe the magazine has found a real place in the industry and are proud of the fact that it has made many friends.

"SOAP BLUE BOOK"

The **Soap Blue Book** is published annually in January and is mailed, without charge, to all subscribers. It serves the soap and sanitary products industries as a buyers' guide and business and technical reference book. In the buyers' guide section are complete lists of suppliers of practically everything readers of **Soap** buy—raw materials, containers, equipment, bulk and private

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brand products, etc. These lists differ from those found in most guides in that advertisers are not listed indiscriminately. Every effort is made to confine listings to "first hands" — manufacturers, direct importers or sole selling agencies. In the reference section we attempt to include material which will be useful throughout the year. The 1935 edition, for example, contained articles on "How to Buy Sanitary Specialties," "Soap Plant Design," and "Tri Sodium Phosphate Detergents," the Peet-Grady test for liquid insecticides in full and revised form, the F.D.A. test for disinfectants and complete Federal specifications for twenty-six soaps and sanitary specialties.

TECHNICAL BOOKS

The publishers of **Soap** act as selling agents for practically every book house publishing books called for by manufacturers of soaps and sanitary specialties. These books, a complete list of which may be found on page 68 in the current issue, cover almost every subject which might be of interest to **Soap** readers. They are sold at publishers' regular list prices.

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While we do not believe that it is the proper function of any business paper to attempt to give out manufacturing advice, formulas, etc., we do find that we can be of service to subscribers in many other ways. Over the year we handle hundreds of inquiries of various kinds. We locate sources of supply for various raw materials, machines, containers, finished products, etc., check up on manufacturers of trade marked articles, locate missing addresses if they are in our files, etc. If a subscriber has a question and it is not for a formula or for manufacturing advice we can usually answer it.

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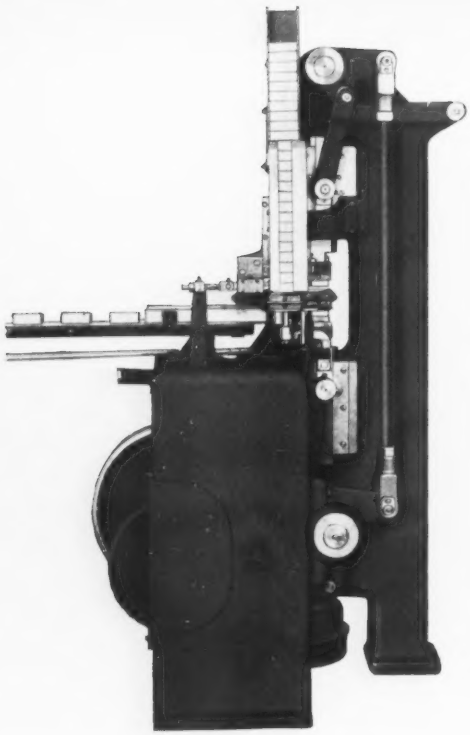
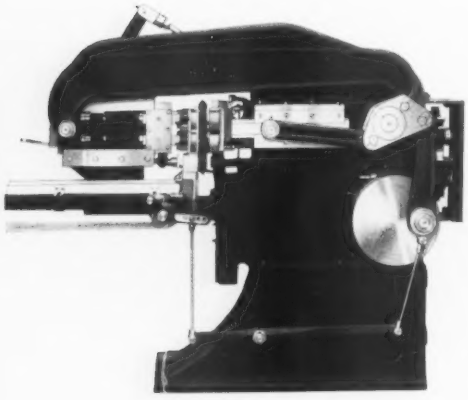


Type ET Toilet Soap Press

Brine and other lubricants discolor soap cakes. On most soaps, Jones Toggle Presses require no pressing lubricant. Result: *No discoloration of cakes.*



Type K Laundry Soap Press

"WORN DIES CAN'T DO GOOD PRESSING"

◆

JONES toggle presses conserve the life of dies, thereby doing better pressing and saving die makers' bills for new dies and repairing old ones. A worn geneva destroys dies. The geneva on Jones Toggle Press runs in an oil chamber, which obviates wear by constant lubrication and by excluding dust and other gritty matter.

All Jones Toggle Presses by bringing the die box and dies into perfect relation prolong their life. Complete absence of vibration also removes a source of die wear.

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MORE SALABLE SOAPS

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SOAP

Volume Eleven Number Six

As the Editor Sees It . . . .

THE dramatic termination of the NRA brought little sadness to the soap, glycerine, and associated industries. That industry, as well as the Government, was startled by the sweeping nature of the Supreme Court decision, was quite apparent. The unanimous verdict of the Court was impressive inasmuch as it gave the effect of finality to the decision which no five-to-four vote could have given. After reading the decision, and taking note of the vote, there could be little doubt in the mind of anybody that the NRA had been quite definitely consigned to its final resting place.

Looking back over two years of NRA in the soap industry, the opinion among soapers is quite general that it was of no help whatsoever to any manufacturer, large or small. It did nothing toward eliminating predatory price cutting or other harmful practices. They still exist. It did very materially increase labor costs in an industry where labor had been on the whole unusually well off. In one or two cases, it raised the spectre of serious labor trouble. In short, the bait which was held forth by the NRA to industry,—the opportunity to eliminate vicious trade practices,—was in truth mostly bait and nothing else. Industry paid the bill and received no direct benefits.

For the manner of formulation and the administration of the soap code while it lasted, the executives of the soap industry and the code authority deserve great credit. The code was simple, understandable, workable. It was enforced effectively with commendable cooperation by the industry. If it did nothing else, it almost compelled the various factors of the industry to become better acquainted,—to know each other better. Although the code itself has passed, it has left behind a closely-knit organization which may accomplish much. It has given to the industry at large an effective trade association which should be maintained without material change. If there was ever work to be done for the soap industry by such an organization, it is now and in the immediate future.

NOW that the NRA is dead and the wage and hour scales of the soap and glycerine code are no longer legally binding on the industry, let us add our voice to that of many others in an appeal to manufacturers that they do not revise wage scales in any manner, shape or form at this time. No matter what the labor cost problem may be, a wait of six months before anything is done is unquestionably the path of good sense. We are fully aware that soap prices have nowhere near kept pace with the sharp rise in raw material costs, and that many soapers are face to face with a serious problem in the ever narrowing margin of profit. But we still believe it is good business right now to proceed slowly with any contemplated wage or hour revisions.

FROM one manufacturer of soap specialties, we note an announcement that he is able to offer his vegetable oil soap "for considerably less than generally current prices". His reason for being able to do this is the fact that most of his present stock of this soap was made prior to the "extreme advances" in the vegetable oil market. If this be the case, this soap maker apparently has not sold any great quantity of this kind of soap during the past year. He must have done all his manufacturing prior to May, 1934,

and been sitting back since then awaiting his great opportunity. Such foresight should be rewarded!

WAS it Emerson who wrote that no product was ever made that could not be made worse and sold for less, and that the man who always buys for less is the legal prey of such manufacturers? We think it was. At any rate, buyers of some of these soap products being sold at "considerably less than current prices", are going to find out that Emerson was just as right as Barnum.

A WELL-KNOWN detergent manufacturer states that the cost of the cleaning materials, that is the soap or detergent, used in any cleaning job, represents only five per cent of the total cost of the job. For this reason, it is held, efficient detergents although priced higher per pound, actually cost less per unit of cleaning because they reduce the labor factor which comprises most of the 95 per cent. The same type of reasoning has been used before for many years, notably in the sale of printing ink to printers. Nevertheless, it does sound convincing in explaining a difference of three or four cents per pound in the cost of a detergent or cleaning compound. Whether the consumer will remain convinced after he uses the product, naturally depends on the product.

NOT so long ago, a small manufacturer of cleansers and soaps, doing a gross of perhaps some twenty or thirty thousand yearly, decided that he should produce his own caustic soda. What he did not know about alkali manufacture would fill several volumes, but nevertheless, he wanted to "make his own and save money." Our initial attempts to discourage him were of little avail. If somebody else made alkalies, why couldn't he do it? So, in order to make the situation as clear as possible to him, we checked up and found that the smallest investment possible for a single electrolytic caustic unit was about a hundred thousand dollars. We so informed the gentleman. Apparently not having the hundred thousand, he decided to struggle along for a while at least, buying his caustic soda from somebody else.

Although this may be somewhat of an extreme case, it does illustrate the type of inquiry which comes to us almost daily. Everybody wants to make everything himself. Whether qualified or not in technical knowledge or with plant and equipment, the urge to be a self-contained manufacturer appears to be terrific. But in innumerable instances, to follow such a plan is poor business. Invariably it is better for the smaller manufacturer to buy a semi-finished product, or even a finished product, than to go too far back into the basic raw materials. It is true of many small soap plants. And in most cases, it is an expensive way to do business.

ONE of the old-time renderers dropped in to see us recently and called to mind his speculations some two years ago regarding the then future of the tallow market. We remember how with tallow close to two cents at that time, he had remarked that if something could be done to put the price up to about four cents, the renderers would be quite satisfied and "saved from ruin." When asked if he would like to sell a few tanks today at four cents, he just smiled and begged to be excused.

DURING 1934, it cost the Lever interests about a million dollars to carry on their palm oil operations in the Congo. This was the loss suffered due to the low prices for palm oil in the world markets. This year, however, the loss will probably be turned into a profit, according to London opinion. All of which goes to prove that having the money to carry through in times of stress is one thing,—and not having it is another.

ARIVAL of Norway and England in the Antarctic whaling grounds in the near future will be Japan, according to Sir MacPherson Robertson, backer of polar expeditions. Next season, it is expected that Japan will have several floating factories and a fleet of chasers in the Antarctic. Her object, it is stated, is primarily to augment her present sources of glycerine for use in explosive manufacture rather than any immediate need of increasing her fat supply.

Our shopping sleuths tell us that in the wake of the N. R. A. collapse the cut price stores have turned to soaps once more as loss leaders. With soap raw material costs what they are, the losses are liable to be substantial if reported prices of two cents for a five cent cake are correct.

The pitfalls for new products are many. How to avoid them, and what procedure to follow in developing new items, are discussed by Mr. Auch in the light of his many years of practical experience. His advice applies equally to re-formulating and re-styling old products. This is the first of a series of four articles.
—The Editors.

NEW PRODUCTS

A Few Hints on Their Development

By RALPH H. AUCH
Chief Chemist, Zanol Products Co.

NEW specialties are coming into the market weekly. The trade-names of some of these products ultimately will become household words and the products themselves will take their places in the laundry, the kitchen, or the medicine chest along with other "best sellers." Others with equally good or better sponsorship will languish and die with large loss of money and of sponsor's prestige, because someone has erred some place along the route from idea to finished marketable product.

But errors *do* occur even in the best regulated companies. This is evinced by the fact that one has but to ponder a moment and numerous examples come to mind. To cite only a few products,—for example, the many sided or octagon bars of laundry soap. Attractive, unusual shaped bars are quite all right in milled

"Drift" had scarcely made its debut when it was changed to "Dreft". Vicks Nose and Throat Drops was no sooner launched than it was changed to Va-tro-nol. Someone erred.

The old and the new above show package improvement that is bound to give the products sales impetus. Improved in carton, label and closure,—healthy evolution without sacrifice of identity.

toilet soaps as long as they fit the hand. In a settled soap, they mean cutting, pressing and racking troubles, undue amount of scrap to be re-worked, wrapping difficulties and "deforms" in transit,—in short, a series of permanent handicaps.

The toilet cream with discolored, oily droplets on top is no fit greeting for the newly won user when she opens the jar. The oily droplets are indisputable evidence of an imperfect emulsion. The discoloration indicates that the mineral oil was of inferior quality. The former condition suggests further research, while the latter "shouts" that a more careful selection of raw materials is urgently required.

Cloudy shampoos of uninviting appearance and distasteful odor are not uncommon. Shampoos that are crystal clear even without resort to the usual glycerin, potassium carbonate, alcohol, or chilling can be made. Failing in this, a brown glass or opal glass bottle, either of which will hide the shampoo's shortcoming, may be used. Complete saponification of carefully chosen oils will eliminate the development of off-odors.

When soap beads first came out, one manufacturer put them up in a thin carton, sealed top and bottom in the usual way. If the cartons were bursted in transit, on the dealer's shelf or in the home, it made a mess and a dissatisfied user at one and the same time. Heavier carton board with all-over wrap solved the difficulty, but it took time and merchandising energy to beat down that initial ill-will or sales resistance.

The household mending cement jells in the lead tube and becomes unusable. Of course, lead tubes are cheaper than either tin or aluminum. An age test of the nitrocellulose solution in lead, in tin, and in aluminum would have proven conclusively lead's unsuitability and dictated the use of either of the other two metals.

The many highly scented health soaps merchandised in individual tuck-end cartons contaminate other things in the housewife's bag of groceries on the way home. Either glassine paper under the usual wrapper or a tight wrap cellophane would reduce the tendency to contaminate its neighbors in the journey from the factory to the home.

If any reader recognizes one of the above criticized products as his own "child," he need not feel badly. It is hoped, however, that the criticism carries sufficient weight so that he will take steps to correct the shortcoming. Lessened sales resistance and greater volume of sales will amply repay him.

Misery loves company so the writer will step out into the first person and admit the mending cement error as his own. I also admit I developed a very good tooth paste, then compounded a flavor, the dominant note of which was cassia. Why did I ignore the widely accepted mint flavor and row against, instead of with, the current? Your guess is every bit as good as mine. Many mistakes have been made and more will follow. The succeeding facts are set down in the hope that some mistakes with their attendant losses in money and prestige will be avoided.

As stated, the route from the initial idea to the finished product is fraught with numerous pitfalls, nearly all of which can be forestalled if reasonable care is taken with every step. In fact, the steps can and should be itemized. Usually they will number about twenty to twenty-five. Every one, even remotely connected with the development, should be provided with a copy of this list and not a single item should be struck off until all concerned are agreed that that phase of the development has been adequately covered. Obviously the list will vary with the type of product. A typical one follows:

1. Market survey
2. Development of formula
3. Stability of formula
4. Choice and stability of odor
5. Preservative
6. Alcohol permit
7. Merit of formula
8. New raw materials required
9. Shall product be patented?
10. Conversion from test tube to manufacturing batch
11. New equipment if required
12. Type of container
13. Net contents (size)
14. Trade-name and trade-mark
15. Is product properly dressed?
16. Directions for use
17. Copy-uses and promotional
18. One or more than one size
19. Shall bid for dime store business be made?
20. Costs
21. Retail price
22. Trade and jobbing discounts
23. Size of shipping container
24. Shall a separate company be formed to exploit the specialty?

Each item in the above list will be discussed. A few will receive but scant attention because each new product presents such an individual problem that few generalities can be drawn. Or, the procedure is obvious.—open and shut. Others will be discussed in considerable detail, either because they have proven to be stumbling blocks or on account of their relatively greater importance.

The amount of time, money and energy that can be poured profitably into the development of a new product or the revamping of an old established one varies between wide limits. At the lower extreme is the manufacturer of limited capital, making an all-embracing line of say 20, 50 or a 100 items, who adds another. The addition may be made to round out his line, to catch a passing fad, to capitalize one competitor's intensive merchandising, to duplicate another competitor's product (that may turn out to be a "dud") or to take a flyer. It can be done with a certain amount of abandon with some short cuts made and some chances taken.

If it proves to be a success, it will at best add only a relatively small volume. If it proves the exception and really "goes to town," the manufacturer can go back and pick up the loose ends. If it "flops," it will be allowed to fall into the discard. The worst that can happen is a few complaints from the retail outlets when the demand approaches the vanishing point.

The upper extreme is the merchandising manufacturer, producing one, two or a few specialties, who develops and adds a new product. It may be something entirely new, maybe something that is a logical companion product for those products he is already marketing, or maybe a marked improvement over competing items. In either case, much money will be spent in sales and advertising effort. His very business life may be at stake. If the product proves a success, it may in time outstrip the manufacturer's other products in volume of sales and even go so far, particularly if it be a companion or closely related product, as to stimulate the sales of the other established specialties.

On the other hand, if it proves a failure for any reason whatsoever, dire effects may be entailed. It will cause a large loss of money. It may cause many dealers to insist upon replacement of their stocks with the manufacturer's other more salable products. It may even cause its sponsor's good name to be injured irreparably among the retailers if not among the consumers themselves.

Such a manufacturer, who is an intensive merchandiser, can afford to leave no stone unturned, leave no detail to chance in making the product, the package and the merchandising plan as near 100 per cent as is humanly possible. In fact, he may organize a separate company to exploit the new specialty.

Now all this seems perfectly obvious, but large sums,

The out-moded man, woman and car is eliminated in favor of the attention arresting spot. The symbolic figure on the laundry tablet was retained as he was quite safe from becoming "dated".

literally fortunes, have been poured into products which have ultimately failed, too often due to lack of thorough preparation. Some were whipped even before they started. Some had to be revamped in formula, package or name, and sometimes more than once, before they became even mediocre successes.

The Market Survey

THE contemplated new product will fall into one of three classes: (a) A new and original product; (b) A competitive commonplace item is lifted into the realm of specialties by special formulation and/or improvement; (c) A product to compete with existing products, which must win its place by price concession, by sheer weight of advertising and merchandising or by being tied to a good established trade-mark or corporate name.

If the contemplated product is new and original, a preliminary survey among dealers and consumers will uncover much information of value along with determining whether or not a need actually exists for it. Creating a demand is in reality satisfying an existing need. If a definite need is lacking, no amount of creative or developmental work, careful package selection, and subsequent sales and advertising effort will obtain and sustain sales. On the other hand, if the product fills a definite previously unfilled need, it may succeed even in spite of some shortcomings.

The case of specialties, whether soap, food or toilet requisite, being given a new twist to lift them out of the commonplace, will not be discussed. To discuss them profitably would require reference to each by brand name. It would appear, however, that this field does offer greatest opportunity for development.

If a product to be developed is similar to existing products already on the market, a preliminary survey may show that there are sound objections to all of them. In the event that objections are uncovered, it would appear that to offer just another brand would prove unwise unless the objectionable features are met and overcome. Many cases come to mind but only one example will be discussed. An underarm deodorant was contemplated by a prominent manufacturer. The preliminary survey disclosed that liquid deodorants were quite effective both as deodorants and perspiration correctives. However, many users disliked the slow drying properties, especially since waiting so long for them to dry came at bedtime. Others did not like to "have to use it last night" that is, make an application one night to obtain relief the following day and evening. Still others claimed the application of a liquid caused itching or even irritation and "tendering" of their clothing.

All the creams available had a greasy base and this proved to be the chief objection to them. Some persons, however, had discontinued use because they were disappointed in their effectiveness. It was found that this type was more popular among colored than white women, although the latter class did employ the creams to some extent for use on their sanitary napkins. The deodorant powders were, according to the survey, not without objections also. The leading objection or criticism of this type was the difficulty of applying them where wanted, their tendency to dust and their lack of effectiveness.

With this mass of data the outlook was not any too promising. It was finally decided that a deodorant cream of the vanishing cream type would encounter the least sales resistance and had the added advantage of being altogether new. It was developed, the objections were met, it was attractively packaged, aggressively merchandised and became a success in spite of the fact that the deodorant market is a relatively thin one. Surveys on various other products have proven equally interesting from face powder through hand soap and foot powder to upholstery cleaner, fly spray and toilet soap.

Consumer research then tells what the buyers want and their objections to existing product. Consumer engineering produces articles consumers do not *know* they want but will want and buy if created for them.

This writer has been credited by an English author with being the "daddy" of liquid nail polish, credited or accused in fact of having "taught the American woman to varnish her nails." When liquid nail polish was first developed, it had its faults, such as peeling, developing a yellowish cast on the nails and becoming entirely too viscous or thick for convenient and uniform application. It was not until large numbers of chemists became interested in similar lacquers for use on automobiles, furniture and the like, that suitable nitrocellulose solvents and solutions became available and permitted liquid nail polish to attain its present satisfactory state. The prediction has been made that unless liquid floor waxes generally are materially improved, the market for them will be pretty largely killed. A limited consumer survey confirms this.

Development of Formula

THE organization maintaining its own chemical laboratory is in position to develop new products of merit and to do it with dispatch. The organization that depends on experienced practical men may expect equally good results, perhaps, but generally the product requires a longer time for its development owing to the method employed, namely "cut and try." Usually too, the product is a close duplication of an already existing product in composition and appearance which may or may not be a good thing in any individual case.

The manufacturer depending upon an outside consulting laboratory for the developmental work will do well to choose one that makes a specialty of just such work. This is because work of this kind is markedly different from the ordinary run of consulting and analytical chemical work. Usually, any consultant catering to general practice can complete the work in

(*Turn to Page 69*)

Lost, Strayed or Stolen?

. . . the Auto Soap Market

Although the number of automobiles on the road has increased year after year, the sale of auto soap has declined steadily. Why?

By LEONARD B. SCHWARCZ
President, Clifton Chemical Co.

YEAR after year the automobile soap business is decreasing in volume, even though the number of cars in use is steadily increasing. What are the reasons for this,—and more important, is it possible for manufacturers and jobbers to regain some of the lost volume of business?

In the days when the motorist was stylishly outfitted in flowing duster and goggles, and when "Get a horse" was considered the "top" in wise-cracks, automobiles usually received loving care from their owners. The writer's first recollection of car cleaning was quite some years ago when he was a youngster in short pants. The family was the proud owner of a two-lunged, side-winding, rear entrance chariot. It is recalled that one summer in Asbury Park, my father thought that the buggy needed a washing, so he sent me into the house for a cake of toilet soap and worked up a good lather with it in a bucket of water and started to give the car a bath. The sun was warm and the soap suds dried quickly. On rinsing off the suds, the car had the appearance of a striped zebra. It is not recalled whether the stripes were eventually obliterated. If it is the reader's impression that like a Horatio Alger hero I immediately realized the enormous future and determined to make a serviceable auto soap when I grew up, he must be disillusioned,—instead I probably went into the house and helped myself to a cooky.

It is not on record which enterprising manufacturer was the first to realize that a new field with great possibilities had opened. However, vegetable oil potash soap appeared on the market. This was highly suitable for auto washing. When used in warm water in a one or two per cent solution, it cleaned efficiently and thoroughly, leaving the surface unharmed. If the finish was of good quality, a periodic cleaning would keep a car finish in the pink of condition. Of course, a cheap or unsuitable paint, enamel or varnish finish soon became opaque, discolored or quickly wore off, whether the car was cleaned or not.

A pure vegetable oil potash soap is also highly suitable for the sprayed and baked finishes used by automobile manufacturers of today. It effectively removes the so-called road filament, and after rinsing, leaves the car in such condition that subsequent washings, for a few days at least, may consist merely of flushing off with plain water and drying with a chamois. After the automobile has covered sufficient mileage to build up another grimy surface, a vegetable oil potash bath will revive the bright finish once again.

Many people living in cities, keep their cars in public garages where, on "live" storage, the car is supposed to be kept clean. In the beginning a garage owner used the proper oil soap, that is a soap of 45 per cent content made from soya bean, linseed, corn or sunflower oil saponified with potash. Some soap manufacturers put out a 70 per cent, or thereabouts, vegetable oil potash

soap which was a satisfactory product. This was very firm, but not as hard as a piece of bar soap. Naturally it was more costly than the 45 per cent soap, but this increase in cost was not exactly proportionate to the anhydrous content, as the barrel, overhead and delivery charges were the same for one as for the other.

Just prior to the war, there was some search for soaps for car washing which were more economical than the soft potash variety which were considered by some to be wasteful. A hard bar, it was thought would go further, and could also be sold cheaper. At any rate, along came the war and with it, supplies of caustic potash were shut off, as none was made in the United States at that time. For such remaining stocks as were left on hand, the price shot skyward to a prohibitive level. The turn to the use of caustic soda and the manufacture of a hard auto soap was thus forced upon the soap maker. Soft potash soap passed temporarily out of the picture.

The garage people found out that these hard bar soaps lasted longer and were cheaper. However, they also found out that it was well nigh impossible to wash a car with them without leaving a streaky body. The complaints of car owners induced the garage men to use less and less soap in their washing jobs in order to avoid the streaking. They found that they received the same price for the wash job whether they used soap on the body or not. The garage man became accustomed to using this lower cost soap, and even after the war was over, he continued to do so. In fact, the cry arose for even cheaper soaps after the war, and almost anything made its way into the hard automobile bar soaps. Had the products been made solely from a straight vegetable oil and used very sparingly, they might have been partially satisfactory, but this was not the case, and as a consequence, a steady decline in demand has resulted with a competitive situation which has left little or no profit in the business.

A QUICK practical way to test for the suitability of any automobile soap is to sprinkle water on it and see if white spots appear on the surface of the soap as it dries. If so this indicates that the soap will streak if used on an automobile. The stearate content of the soap is what largely determines the intensity of the streaking effect. If water is poured on the surface of a pure vegetable oil potash soap, its transparency remains, indicating that a potash soap will have no streaking effect. Furthermore, when a potash soap solution dries on a car, due to its higher solubility, it is far more readily rinsed off with water than any soda soap.

Olive foots soda soap became popular for a time. It makes a nice looking green colored soap and was usually sold as "hard olive oil soap." Although the name sounded "high class", it was not satisfactory for car washing because it does not lather sufficiently. So the soap manufacturer again changed the formula to include fatty acids and foots of some of the other oils as well, often using cheap grades of coconut oil to enhance the lather. Any soap with an appreciable amount of coconut oil in it, is distinctly unsuitable for cleaning glossy surfaces as it streaks and tends to destroy the finish.

The garage man was as yet far from satisfied,—soap was an expense to him so the less he paid for it, the better off he was, so he thought. Therefore, the soap manufacturer did his best (or worst) to fill the bill by the questionable expedient of using hardeners such as grease, silicate of soda, etc. These produce a hard soap, and one containing the maximum amount of water.

Some or all of these unsuitable raw materials were used and even floor scrapings were utilized. In fact one manufacturer confidentially boasted that he put everything in his auto soap kettle except the kitchen sink. The race among the manufacturers seemed to be which one could turn out the poorest soap at the lowest price. Nearly all won,—and lost.

The fly in the ointment was that the latest development of the soapmaking "art" raised havoc with the finish of the cars. The soap left a smoky tenacious filament, it streaked, it ate off the finish. The garage owner was not long in finding out its faults. As a result, he became afraid to use it on the body and only washed the running gear with soap. As would be expected, less and less soap was being purchased and many garage owners discontinued its use entirely and used plain water on the body and kerosene to clean the running gear.

From the foregoing remarks, one may get the idea that the garage owner was entirely to blame for the dwindling sales of auto soap. The fault probably lies just as much or more with the soap manufacturer who turned out an unsatisfactory product in an effort to get business, and by so doing, figuratively speaking killed the goose that laid the golden egg. No particular manufacturer is in the writer's mind. All were more or less at fault.

Outside of the public garage, there are a vast number of automobile owners who keep their cars in their own private garages. Today the average auto supply store still sells a small amount of high quality pure vegetable oil soap in 5, 10, and 25 lb. cans to individual owners, but the amount is steadily dwindling. Perhaps the large number of cleaners and polishes that have appeared on the market may partly account for this.

Unquestionably, auto polishes serve a definite purpose. On the other hand, it must be realized that polishes have certain shortcomings. There are several types of polishes on the market. One is the so-called oil emulsion polish. This kind acts like so much powder, paint and perfume on a burlesque queen who really should have a bath. An oil emulsion polish has very limited efficiency in the removal of road haze, and while it puts a high lustre on a car quickly, it lasts but a short time. It is apt to be greasy unless rubbed off

with great care and therefore is prone to attract dust. Then again it usually shows rain spots very plainly and these are somewhat difficult to remove without re-polishing.

There is another type of polish or cleaner which depends on an abrasive such as infusorial earth for its results. While it is true that polishes of this type readily remove grit, and grime, they also take off some of the surface, as is evident by looking at the rag with which this polish has been applied. A steady use of the abrasive type of polish will cause the raw metal to show through in a comparatively short time.

Then there are the so-called wax finishes which are either in a liquid or paste form. These usually are recommended to be used after the car is thoroughly cleaned with some type of abrasive powder cleaner, either liquid or paste, as there is little use in applying the wax to seal in any of the dirt that is on the surface. It is quite a laborious job for an owner to first clean his car thoroughly with an abrasive cleaner and then wax and polish it, as any one who has tried can well testify. If the wax happens to be in liquid form, the solvent may be injurious to some types of finish. If it is in paste form and made from No. 1 grade carnauba wax, it undoubtedly will result in a nice looking job IF applied by an expert. However, all car owners are not experts and many messy jobs are turned out even after a considerable amount of perspiration has flowed. At best, it takes considerable time and elbow grease to turn out a high-class job, probably three to five hours. The lasting effect of a wax finish is not for very long at best and if the car is used steadily, the finish must receive constant attention in order to retain its appearance. There are still other types of polishes, but each one has its own inherent shortcomings.

On the other hand, it is the impression of those who are familiar with the subject that the use of a good vegetable oil soap to keep a car clean and shiny is vastly to be preferred and has many advantages over the cleansers and polishes now used extensively for this purpose. Oil soap is easy to use. It cleans a car clean without injuring the surface. Neither does it leave any foreign substance on the finish to show up rain spots, etc. It has none of the above mentioned objections of the cleanser-polish and wax preparations noted above. It is not a laborious job to put a small amount of oil soap in a pail of warm water, clean off the car with it, then flush with plain water and dry with a chamois. By the use of a good quality vegetable oil potash soap, a car may be kept clean with less work and at a lower cost than by any other method.

If the manufacturers of automobile soap desire to benefit by past experience and regain the business lost through short-sightedness then it is suggested that they forget about the hard soap and only make a good quality pure vegetable oil-potash soap. The fine qualities and effectiveness of this high type soap should be brought to the attention of garage owners and the public in general.

Judicious advertising, propaganda in trade papers and demonstrations by manufacturers' and jobbers', salesmen should help considerably. There are thirty million cars in the United States that should be cleaned weekly at least, with good oil soap and as three ounces is sufficient for each washing . . . well figure it out for yourself. At any rate, a lot of oil soap should be used and it is up to manufacturers whether they want to correct past errors and again enjoy this valuable business, or just take it on the chin and do nothing about it.

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Soaps have germicidal and detoxifying properties. Pneumococci are especially susceptible to the action of certain unsaturated soaps, such as sodium oleate, linoleate and elupanodonate. These soaps are germicidal at 37°C. in a concentration of 0.005 per cent with the Reddish technic. Other unsaturated soaps such as sodium abietate, chaulmoograte, undecylenate, β and β-oleosterate, as well as hydroxylated and saturated soaps are less effective. Bile salts and sodium salicylate require concentrations of 5-10 per cent to kill pneumococci in 10 minutes. Sulfate ester salts are pneumococcidal in concentrations of 0.01 per cent. *Strep. lacticus* is usually killed by the same soaps as the pneumococcus but is more resistant. However, there are some exceptions such as sodium oleate, palmitate, and β and β-oleostearate. *Es. coli* and *Staph. aureus* are still more resistant. All soaps detoxify diphtheria toxin, but the degree of effectiveness varies with functional groups and spatial configuration. One double bond increases the detoxifying power of a saturated soap, but the addition of further double bonds does not change it. Hydroxyl groups and triple bonds affect the detoxifying power very little. Milward Bayliss and H. Orin Halvorson. *J. Bact.* **29,** 9-10 (1935).

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Chlorinated cetyl sulfuric ester and a mixture of chlorinated sulfuric esters obtained from hydrogenated coconut oil are used in the following processes: Fulling wool, washing soiled white textile material, sizing worsted warps and bleached cotton with potato starch, dressing with Epsom salts, dextrin and sirup, bleaching cotton yarn with chlorine, dyeing cotton on the jigger with Anthra Bordeaux, dyeing loose wool with Palatin Fast Gray B and printing with a paste containing Benzo Dark Green B, glycerine, wheat starch, tragacanth and sodium phosphate. Chemische Fabrik Stockhausen & Cie. British Patent No. 419,308.

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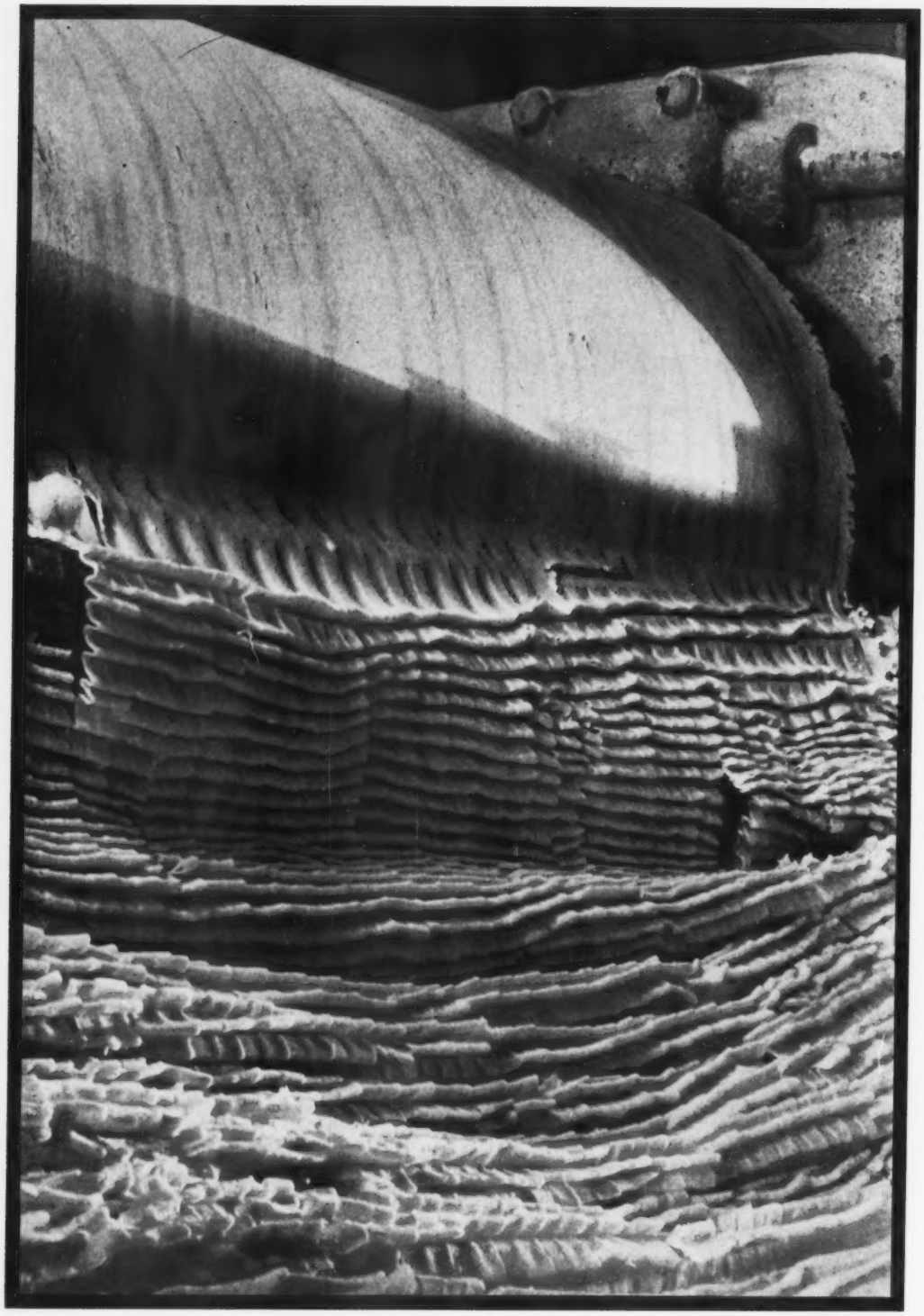
Animal and vegetable oils and fats are purified by treatment for a short time at about 50° C. with dilute hydrochloric acid and an aqueous solution of calcium chloride. These may be added together or in either order. Metallges. A.-G. German Patent No. 605,064.



Waves of soap coming off the chilling roll. An unusual and striking view of modern soap manufacture which was published in a recent issue of "Ladies' Home Journal". Photo by Margaret Bourke-White.

Further Comments on

HAND CLEANERS

By C. A. TYLER, Ph.D.

A HAND cleaner is a product designed particularly for use on the hands to remove dirt not ordinarily removed by toilet soap. This type of cleaner was developed to meet special occupational needs in particular for manual workers where the dirt gets ground into the skin. In such cases, an abrasive is necessary in order to loosen and remove the dirt. Hand cleaners are made in various forms, as paste, powder, cream, bar and liquid. These different forms are intended to fit particular occasions and needs. The bar form is more frequently used as a household cleanser. Pastes and powders are used industrially, and liquids for special types of soil. The creams are used by the motorist who likes the convenience of the tube in which they are packaged.

The paste is the most commonly used form of hand soap. It is prepared with varying degrees of firmness, some products being soft and watery and others harder. The paste usually contains soap, an abrasive, an alkaline salt or salts, and water. The soap is present to the extent of 10 to 15 per cent. Abrasives may be pumice, silica, sea-sand, sawdust, incinerated rice hulls or any suitably ground inert material. The coarseness of the abrasive depends on the use to which the soap is intended to be put. The same abrasive may be obtained in varying degrees of fineness, for instance from 60 to 120 mesh. Ordinarily paste hand soap contains from 35 to 50 per cent of abrasive.

Inexpensive abrasive pastes are frequently loaded with ground marble, which is actually too coarse to serve as an abrasive in cleaning the hands but which does serve to reduce the selling price per pound, and to that extent constitutes adulteration. Naturally such soaps are higher in total solid content and weigh "heavy".

Alkaline salts are used to the extent of 1 to 5 per cent. They may be trisodium phosphate, soda ash, modified soda, borax, sodium metasilicate, etc. Against acid or greasy dirt the more alkaline salts such as trisodium phosphate or sodium metasilicate, have the greater efficiency. This is because they neutralize the acid in the dirt. In the case of grease where some saponifiable matter is apt to be present, they may even react with this to form nascent soap, with a corresponding increase in detergent action. They also remove much of the natural oil on the skin, leaving the hands dry and rough after repeated use. The water content of the paste is varied to give the consistency desired.

Powdered hand soap is sometimes simply a mixture of powdered soap with an abrasive, or a mixture of powdered soap, an abrasive and an alkaline salt. Another type is made by dissolving soap, or soap and an alkaline salt in water and adding an absorbent material such as wood flour or sawdust. The mixture is agitated thoroughly and then dried. The soap and alkali are in the pores of the sawdust so that the dried product looks like ordinary sawdust. However, when wet it shows the presence of soap by giving a lather and cleansing. Sometimes the sawdust is merely mixed with

the dry soap powder. As an abrasive it is much milder than most of the minerals used for that purpose.

The cream type of hand soap usually contains the maximum amount of water that will permit a semi-solid gel. Some of these soaps do not contain an abrasive. Often a siliceous silicate is used, that is a silicate having a high silica content. The ratio of $Na_2O:SiO_2$ may be 1:3 or more. This increases the colloidal character of the product and promotes the jelly structure. Glycerine is quite commonly added because of its hygroscopic nature, that is, its tendency to prevent evaporation of the water. From 2 to 5% is a suitable amount. The creams are sometimes erroneously called cold-cream soaps because of a resemblance to cold cream in consistency.

A product of the cream type was recently run across about which the manufacturer needs advice badly. The product was advertised as a hand soap requiring no water. The user was directed to apply the soap to his hands and then rub his hands together. The soap picked up the dirt and then came off in little dry rolls. In order to give the product this particular quality, casein had been added. Now casein is a protein and will decompose in time, giving rise to a bad odor, like most other food products not properly preserved. This was one of the difficulties here, the casein having decomposed, producing a noticeably unpleasant odor. Probably the product had contained both a volatile solvent (naphtha, carbon tetrachloride, etc.) and water. If so, the solvent had evaporated and the water had separated. What happened was that the tube appeared not to have been completely filled. Loss of volatile solvent would account for this. On squeezing the tube, first a thick paste appeared which was extremely hard to squeeze out, then suddenly a stream of liquid shot out. This product was intended for the convenience of the motorist. One can imagine how a man who had already had motor or tire trouble would react.

The bar type of soap may be any ordinary soap mixed with an abrasive. In this case a finer abrasive must be chosen than with the paste type. Pumice or tripoli is ordinarily used in the better-known brands. The abrasive, of course, furnishes friction and acts mechanically. Sometimes this soap also contains an antiseptic. This should be fairly mild, as the skin has already been given rather harsh treatment due to the presence of the abrasive.

Liquid hand cleaners, outside of the regular liquid potash soaps, are rather rare. One type found does not contain an abrasive, but is a soap solution combined with organic solvents. The product is designed especially for those industrial workers whose hands become coated with lacquers, and therefore it contains lacquer-dissolving solvents. After the lacquer is dissolved, the soap aids in emulsification and removal of the mixture from the hands. This type of solvent hand soap for special purposes seems worthy of future development.

THE proportion of the ingredients in the different products depends pretty much on the manufacturer. Glycerine may be used in any of the softer products to prevent shrinkage and hardening. These products are sometimes colored and almost always perfumed with citronella, sassafras or similar low-cost odor. Sometimes thickening agents like gum arabic or agar-agar are present. In some pastes a small proportion of bleaching agent such as Javelle water (chlorine bleach) is used, but its lack of stability and its unpleasant odor are objectionable features.

A few of the larger manufacturers of hand soap are soap manufacturers in the sense that they saponify the oils to make the soap used in their product. But most hand soap manufacturers buy their soap chips or flakes from some of the larger manufacturers who produce soap primarily. Thus hand cleaners makers are primarily compounders or specialty manufacturers rather than soap manufacturers. This to a great extent arises from the differences in the channels of distribution of soap and hand soap.

A distantly related product has been on the market for the past couple of years with a moderate degree of success. It consists of a protective cream with which the person coats his hands before getting them soiled so that the dirt will not penetrate the pores to so great an extent and which therefore permits easier cleaning of the hands when the work is finished. Although originated as a competitor of hand soaps, it supplements them rather than competing with them.

The paste form of hand soap probably owes its popularity to its high abrasive content, the ease with which it can be used, and the fact that it lathers readily. A coarser abrasive can be used in the softer forms than in the bar form. The natural drawback with any of these products is their harshness on the skin.

Form Toilet Goods Association

A NEW national organization which will group together all manufacturers in the cosmetic, perfume and toilet goods business was the outcome of the three-day All-Industry Convention held at the Hotel Plaza, New York, May 21-23. Herman L. Brooks of L. Coty, Inc., was elected president of the new organization, with Mrs. Lillian Dodge of Harriet Hubbard Ayer as first vice-president. Second vice-president is Charles A. Pennock of Richard Hudnut; third vice-president, H. C. Balsley of the Katherine McDonald Company; the treasurer is Paul Vallee of Roger & Gallet, and the secretary J. J. Poses of A. A. Vantine.

The executive committee are: Cecil Smith, of Yardley, Inc.; Carl Weeks, of the Armand Co.; George A. Wrisley, of Allen B. Wrisley Co.; Earl B. Means, of Bristol-Myers Co.; H. Gregory Thomas, of Guerlain, Inc.; J. H. Miller, of the Dorothy Perkins Co.; A. E. Johnson, of Colgate-Palmolive-Peet Co.; C. N. Baker, of Lamont Corliss & Co.; William E. Jacobs, of George W. Button Corp.; A. H. Bergmann, of Oxyzn Co., and Alvin Brush, of Affiliated Products Co.

One of the main topics at the meeting was the avalanche of federal and state legislation which has been taken up in recent months relative to the manufacture and sale of cosmetics and toilet preparations. Speaking on this subject, Hugo Mock, member of counsel for the Committee of the Toilet Goods Industry, stated that his hearers should view with relief the passage of the Copeland Bill, since its adoption may end the recent epidemic of state laws. Northam Warren also spoke on this subject, urging an effective resistance to legislation which singles out the cosmetic industry for attack.

Herman L. Brooks

The usual entertainment features were on the program this year, including a theatre party and supper dance the first evening of the convention, a golf tournament on the second day, and the annual banquet in the Grand Ballroom of the Plaza, the evening of May 23. Charles Kelly, of Haggerty Bros., acted as chairman of the entertainment committee.

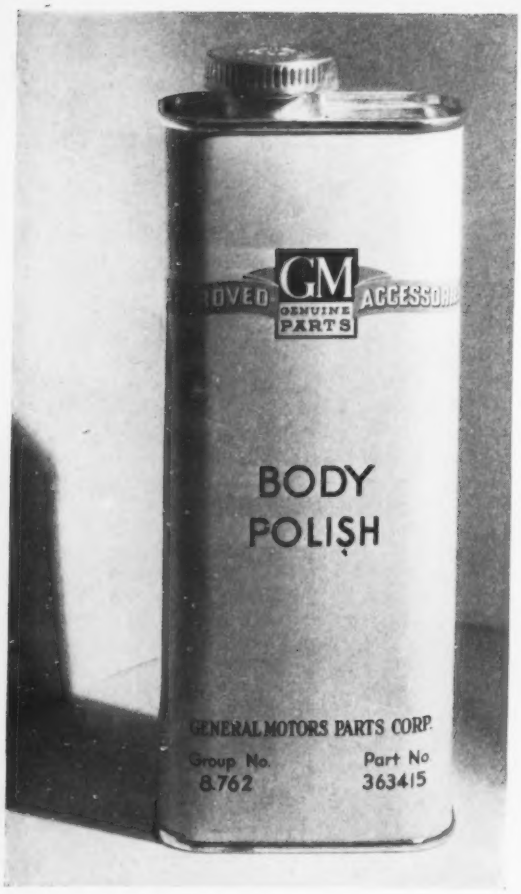
♦

William Mc. Bristol, chairman of the board of trustees of Bristol-Myers Company, New York, died at New York on June 2, aged seventy-five. He is survived by his sons, Henry P. Bristol, president of the company; Lee H. Bristol, vice-president in charge of advertising, and William Mc. Bristol, Jr., vice-president in charge of production.

The Annual Banquet in the Grand Ball Room of the Plaza

New

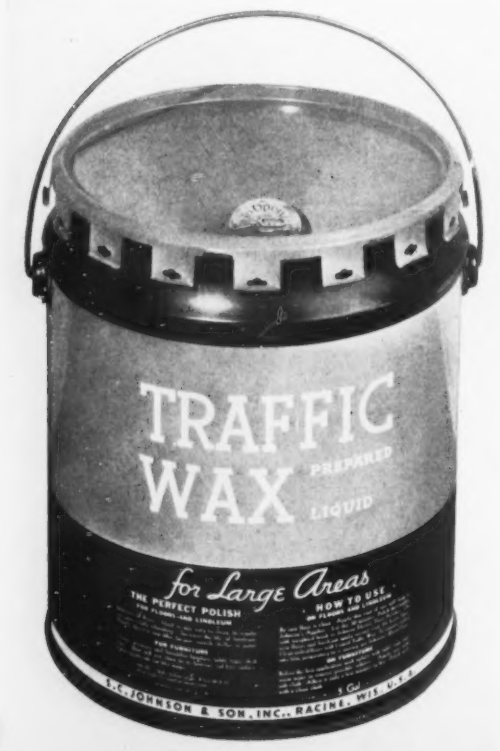
Products and



A tall, slim can in deep orange and black is adopted by General Motors for its automobile body polish. Container by American Can.

SANA-PORCE
POWDERED
PORCELAIN
CLEANSER
An excellent, safe product for cleaning, sterilizing and deodorizing sinks, bath tubs, drinking fountains and other enameled iron-ware. Keep in a dry place. Can should be tightly closed when not in use
CONTENTS 22 OZ.

Sana-Porce, manufactured by the Huntington Laboratories, Huntington, Indiana, appears in a new dress, a fibre can with metal ends, in the Huntington blue, orange and black combination. Can by Cin-Made of Cincinnati.



For the large containers of their Liquid Traffic Wax going to the janitor supply and institutional trades, S. C. Johnson & Son of Racine, Wis., have adopted a new type steel pail made by Geuder, Paeschke & Frey Co. of Milwaukee.

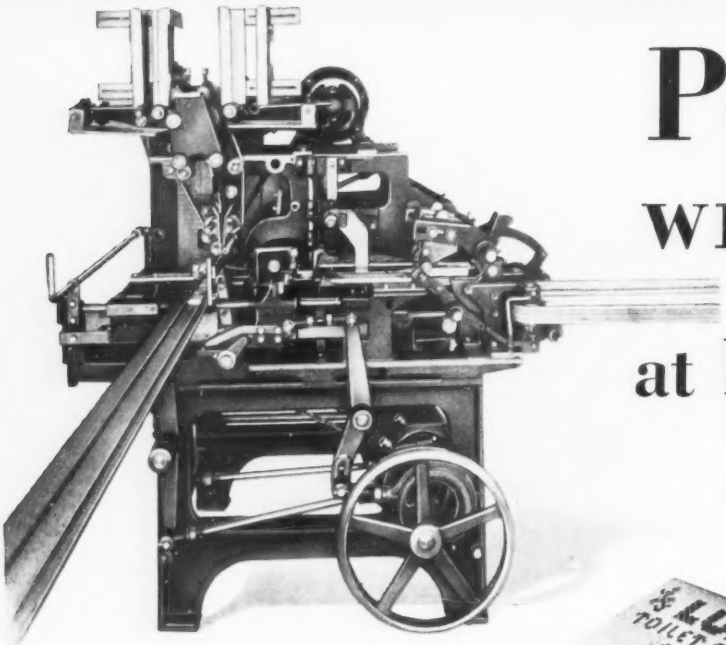
Packages

A new size bar and wrapper of Pynol Soap which is reported meeting with unusual success. A milled pine-odor toilet soap in three-ounce bars designed to retail at fifty cents per dozen with dealer's name printed in on wrapper. Made by The Pynol Co. of Burlington, Iowa.

Heetfield-Tillou

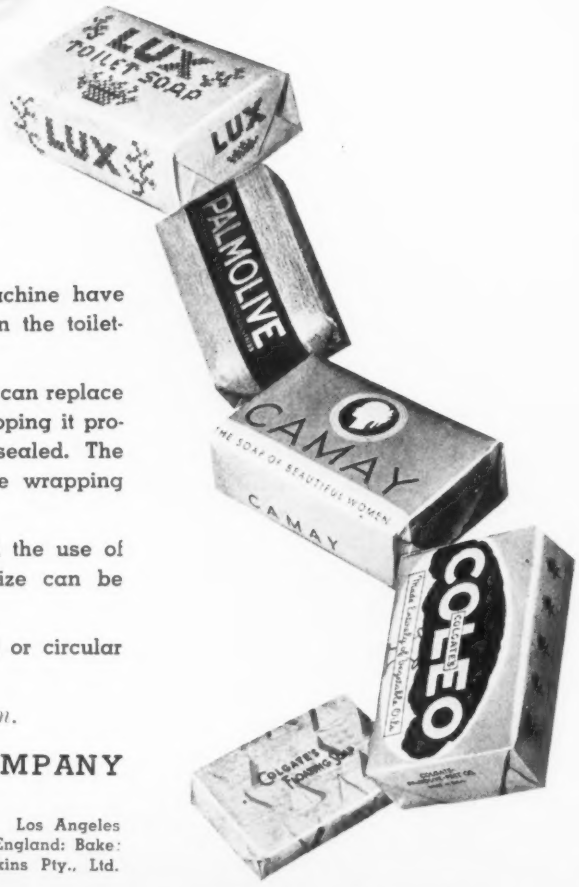
A silver polish and protector against tarnish goes artistic and appears in a new and distinctive package. The jar of Silver Sentry is topped off with a contrasting white metal shell cap by Phoenix of Chicago.

The "soap of beautiful women" appears now in an attractive new shipping box which is a reproduction of the Camay wrapper. The case was designed and made for P & G by The Hinde & Dauch Paper Company.



Perfect wrapping at high speed

150 cakes per minute



Adjustable for various sizes

The outstanding advantages of this machine have made it the leading wrapping machine in the toilet-soap field.

With its speed of 150 cakes per minute, it can replace two of the older type machines. The wrapping it produces is flawless—smooth, tight, perfectly sealed. The surface of the soap is not marred in the wrapping process.

By means of adjustments provided and the use of interchangeable parts, more than one size can be wrapped on the same machine.

Can be equipped to insert a cardboard or circular between the inner and outer wrappers.

Write for complete information.

PACKAGE MACHINERY COMPANY

Springfield, Massachusetts

New York - Chicago - Cleveland - Los Angeles
Mexico, D. F., Apartado 2303 - Peterborough, England: Baker Perkins, Ltd. - Melbourne, Australia: Baker Perkins Pty., Ltd.

PACKAGE MACHINERY COMPANY

Over 200 Million Packages per day are wrapped on our Machines

Court Ruling Voids Codes

WITH the unanimous decision of the United States Supreme Court in the Schechter poultry case, handed down May 27, all of the N. R. A. codes under which American industry has been organized for the past two years became a dead letter. The effect of the decision was to remove all legal compulsion from every provision of the codes, including of course the code of fair competition for the soap and glycerine industry.

Just what effect this decision will have on working conditions in the soap industry cannot be told definitely as yet, of course, but to judge from statements of various leaders in the industry, the abolition of the code should not have any immediate effect on wages or hours. In communications to SOAP the executives of a number of leading companies in the industry have expressed themselves as opposed to any change in minimum wages or hourly rates—and without exception they have shown a disposition to carry on just as they have been operating under the code.

The following statements from a number of leaders in the industry seem correctly to picture the general industry attitude:

S. B. COLGATE, COLGATE-PALMOLIVE-PEET CO.—This company voluntarily signed the President's re-employment agreement and later helped to write our industry code. Since its adoption we have lived up to the code provisions. We now contemplate no change either in hours of work or in rates of pay, nor will we change our long-standing policy of not employing anyone under sixteen years of age as a result of the ruling of the Supreme Court that the NIRA is invalid.

SAMUEL S. FELS, FELS & CO.—The coming of NRA had practically no effect upon our wage scale or schedule of working hours which, in the main, were considerably more liberal than the limits set by the code. Consequently, with the passing of NRA we contemplate no changes. We intend simply to continue as in the past to try to give our fellow workers fair, liberal and humane treatment.

GEORGE EASTWOOD, ARMOUR SOAP WORKS—Our company has already announced to our employees that we expect to make no change in hours of work or rates of pay at this time.

R. H. MERRILL, LOS ANGELES SOAP CO.—We adopted the forty hour week six months previous to the enactment of NRA and have continued on that basis ever since. Have paid wages well above the limits set in our code and have made no change since the NRA decision. Hope there will be no change in wages paid in our industry. Consider good wages essential to general prosperity.

PROCTER & GAMBLE CO.—The future policy of this company will be unaffected by the NRA decision. Our policy for years has been one of cooperative effort to improve the relationship between employer and employee and will so continue.

LEVER BROS. CO.—Our company does not propose to alter its policy with respect to wages and hours of work because of the change in the status of the National Industrial Recovery Act.

H. D. BANTA, IOWA SOAP CO.—Will probably conform to policy of soap industry as a whole.

ALLEN B. WRISLEY DISTRIBUTING CO.—Our company proposes to maintain the minimum wages of the old code and hope that all manufacturers will maintain current wages and salaries as a part of a sound business program.

ANDREW JERGENS CO.—Our policy shall be to continue in respect to wages and hours the same as under the NRA and are willing to cooperate with any move that will be beneficial to the industry and humanity.

I. KATZ, J. EAVENSON & SONS—Have made no changes whatever. Operating the same way as when working under the soap code.

As the soap code never contained any price control provisions, no change is indicated from this angle as a result of the Supreme Court decision. Retail prices for soaps are of course a different matter, and early reports indicate that many cut-price drug shops and some department stores have already reduced their retail prices on soaps to the consumers, and are once more using soaps as "loss leaders."

OIL TAX REPEAL OPPOSED

Repeal of the 3c tax on imports of coconut oil for soap use, as proposed in the Dockweiler-Guffey bills recently introduced in the House and the Senate, has been attacked by A. M. Loomis, representing producers of domestic oils. Speaking in Washington, Mr. Loomis opposed the move to admit denatured coconut oil duty-free, and referred to the "fine results which have come about through enactment of the special 3c tax." He said that the effect of the tax has been to bring back up to somewhere near normal the prices of domestic fats which had previously been driven down to starvation levels by the imported fats. He referred specifically to a leading soap company which before the tax was levied was able to pay a dividend of 33% over the 1930 to 1933 period. When the tax went into effect, Mr. Loomis claimed, and oil cost them 3c more per pound, there was almost no appreciable increase in soap prices, and still the companies pay good dividends.

YARDLEY ANSWERS F.T.C. COMPLAINT

Yardley of London, Inc., Union City, N. J., has filed with the Federal Trade Commission an answer to the complaint of that body that Yardley has advertised as English goods products which are not actually imported from England. The Union City concern states that it is purely a selling organization for the English firm, Yardley of London, Ltd., and that its principal function consists merely in packaging Yardley products of British make. It is stated that no essential materials are purchased in United States, and that designs, styles, formulae and quality are all controlled by the parent house in London.

TAX STATUS OF WHITE FLOATING SOAPS

The taxability of ordinary white floating soaps under the provisions of section 603 of the U. S. Revenue Act of 1932 is still a question which has not been decided definitely one way or the other by the Internal Revenue Department. We are advised by the Department that this question is not one such as could be the subject of a general ruling, and that individual manufacturers should submit samples of their soaps of this type, together with all labels and advertising matter under which they are sold, for individual decisions as to taxability in each case.

As a general rule toilet soap is taxable whether in the form of a liquid, semi-liquid, paste, flake, powder or cake; and soap powders advertised or held out as suitable for toilet purposes or for application to the body as cleansing agents, are taxable. Also taxable are toilet soaps advertised or held out as having medicinal properties, medicated toilet soaps, shaving soaps, creams and powders and shampoo soaps and soap powders.

Soap used *chiefly* (italics Editor's) for removing grease and stains from the hands, though capable of incidental use for cleaning kitchen utensils, is also taxable as a toilet soap. The uses to which a soap may be put does not definitely determine its taxability, according to Deputy Commissioner D. S. Bliss. So far, no important test case has as yet been decided fixing the taxability of the product that the soap trade generally classes as ordinary white floating soap. In particular, the tax status of "Ivory" has not been the subject of any court decision.

Cooperative laundry campaigns are going on throughout the country, with new pricing schemes which lean toward the flat-rate plan. The patented 3-section bag service, with the cost based on the number of sections filled, is being tried out in different cities. Of the first 5,000 bag customers in Kansas City, 30 per cent came from other laundries, 40 per cent were the laundries' own customers converted from pound rates, and 30 per cent had not been sending to power laundries. *Business Week*, April 27, 1935.

CHICAGO TRADE NOTES

THE first golf tournament of the Golf Auxiliary of the Chicago Drug and Chemical and Chicago Perfumery, Soap and Extract Associations brought out over sixty members and guests to the Bunker Hill Country Club, May 21st. Prize winners were as follows: Class A—O. H. Pabst, 85-12-73, A. C. Drury, 85-11-74, John Bodevin, 86-12-74; Class B—A. G. Schneider, 90-22-68, T. Gilson, 94-21-73, T. Morgan, 90-16-74; Class C—E. N. Blomberg, 98-27-71, R. O. Hereford, 104-25-79, H. V. Wallace, 105-26-79. Guest prizes were awarded to E. Meyers with 89-15-74, and F. Voorhees with 96-20-76. Blind bogey prizes were won by A. C. Drury, T. F. Gilson, Dr. Winkleman and L. Schulze. The next tournament will be held June 18th at Olympia Fields Country Club.

The Affiliated Sanitary Supply Distributors of Chicago met at the Hamilton Club, May 14th. The members present adopted a resolution that all members write their congressmen and senators protesting against pending legislation to further tax oils, domestic or imported, that enter into the manufacture of soap. It was also agreed to object strenuously to the present 3c per pound tax on Philippine coconut oil and to advocate the return of such tax to the Philippine government. L. Carlton Mertz gave an interesting talk on the subject of soap and detergents.

Capitol Sanitary Products Co. has recently moved into larger and more modern quarters at 1349 N. Western Ave. The move was made necessary by an increased volume of business and gives the company much improved facilities for serving their customers.

J. H. Helfrich, president, and George Wrisley, chairman of the legislative committee, represented the Chicago Perfumery, Soap and Extract Association at the All-Industry Cosmetic Convention held in New York, May 21-23.

Philip A. Rising, an executive in the Chicago office of Charles Pfizer & Co., was seriously injured and his wife fatally injured in an automobile accident near Ft. Wayne, Indiana, on May 31st. Mr. Rising was on his way to the pharmaceutical convention in Hershey, Pa.

Ken R. Dyke, advertising manager of Colgate-Palmolive-Peet Co., has been appointed to the board of governors of the Advertising Research Foundation and will head the committee on copy testing. The Foundation was recently organized as an activity of the Association of National Advertisers. It is under the active management of Lee H. Bristol, vice-president of Bristol-Myers Co.

ESTABLISH TALLOW FUTURES MARKET

Trading in tallow futures at the New York Produce Exchange is expected to start shortly, as soon as rules for trading adopted at a recent meeting of the New York tallow trade have been approved by the managers of the exchange. The movement to organize a tallow futures market was started several months ago, and a number of meetings have been held for the purpose of drafting trading rules. These are now in final form and were recently posted on the floor of the exchange. A special committee, appointed by Samuel Knighton, president of the exchange, to work out the mechanics for the conduct of the market is composed of Edwin Stern, chairman; William H. Holt, Robert W. Capps, H. C. Baumgardner, Samuel Z. Weaver, Howard E. Norris and Morris Kullman.

STUDY SHAVING CREAM SALES

A sharp rise in the number of users of brushless shaving creams as of January, 1935, a jump of almost one hundred per cent over the figures for 1934, and a slight decline in the number of users of regular soap shaving creams, are facts brought out in a survey of the Milwaukee market by the *Milwaukee Journal*. The most widely used brushless shave product is Burma-Shave with 26.9 per cent of all users. Barbasol is a close second with 23.7 per cent. Next come Molle, Koolox, Man-o-War, Krank's and Mennen's in order. Among the soap creams, the leading seller is Palmolive with 38.9 per cent of all users with Lifebuoy second at 17 per cent, Williams' third at 11.4 per cent, Colgate fourth at 7.9, followed by Mennen's, Peau Doux, and Ingram's in that order. Although the brushless product showed a sharp advance as of January, 1935, it is still outsold three-for-one by the soap creams. Of all men over 18 years of age, 55 per cent use soap creams and 17.8 per cent use brushless. The order of sales, positions on the list, in all cases of both groups was just about the same as of January, 1934, the figures show.

The annual "Drug Trades Exposition" is scheduled for the Grand Central Palace, New York, October 15, 16 and 17. Exhibitors will include manufacturers of drugs, medicines, perfumes, toilet articles, equipment and all other items that are sold or used in drug stores.

Gold Par Products Co., soaps, soap raw materials and laundry specialties, formerly located in the New York Produce Exchange Building, moved recently to new quarters at 305 East 46th St., New York.

Contracts have been awarded by the F. Cole Rendering plant, Waterloo, Iowa, for construction of a new $16,000 addition to be used for expansion of its lines and to care for additional business.

R. W. Merriam & Co. have succeeded Capital City Cleanser Co., Washington, D. C., distributors of industrial and institutional cleansing chemicals.

VICTOR ANSWERS F. T. C. COMPLAINT

Victor Soap Company of Dayton, Ohio, has filed an answer to the complaint of the Federal Trade Commission that the Ohio concern has been guilty of misleading representations in the distribution and sales of its products. Victor denies the F.T.C. allegation that it advertised guaranteed successful sales campaigns for its agents, stating that it ceased to use that line of advertising a long time ago. It also denies advertising extravagant claims of sales commissions accruing to its agents for the sale of soap. The Dayton firm states that statements such as "Easy to make $40 to $50 a week" are based on verified reports of its agents' earnings.

Filed by Alfred Bettman, attorney of Cincinnati, Ohio, the answer also denies the F.T.C. allegation that one of every seven cakes in a box of its soap was "germicidal soap." The company claims that it ceased using that representation some time ago, and that now it designates one of the seven cakes in each box as "blue medicated soap." The Federal Trade Commission will consider the answer filed, before deciding whether to set a date for a hearing. Involved is the issuance of a cease and desist order against the soap concern.

Iowa Soap Company, Burlington, Iowa, has been insured continued summer operation through a federal contract for soap that will step up plant operation. The order is for more than a million pounds and is to be delivered to the veterans administration.

The annual outing of The Foragers, New York organization of soap and toilet preparations' salesmen, will be held Saturday, June 29. The program for the day will include, as usual, games, entertainment and a shore dinner. John Brennan is chairman of the entertainment committee in charge of the affair.

J. R. Watkins Co., Winona, Minn., has put into operation a new manufacturing plant at Oakland, Calif., to take care of increasing distribution in that territory. Other plants include the main factory at Winona, as well as plants in Newark, N. J., Memphis, Tenn., and two Canadian units.

A reader of SOAP has received inquiries for "Lemoine" soap and shampoo and will appreciate knowing who manufactures these products. The name and address of the manufacturer may be sent to SOAP, 254 West 31st Street, New York, N. Y.

A firm in Montreal, Canada, is interested in purchase of soaps of American manufacture. Interested concerns may communicate through the U. S. Bureau of Foreign & Domestic Commerce, mentioning inquiry number 8903.

Barton Soap & Chemical Co., Chicago, has recently occupied new quarters at 3144 West 25th St.

The right SILICATES *save money*

YOU are sure of smooth, uninterrupted production of every one of your various soaps and cleansers when your silicate is a P. Q. product. P. Q. has made silicates of soda continuously since Lincoln was in the White House.

In the P. Q. selection of 33 silicates are grades of low alkalinity and grades of high alkalinity, powders and liquids. You will find the right one that fits each of your formulae, the old and proved ones, or those still in the experimental laboratory.

A silicate that is unsuited to your needs wastes your time and increases costs. Look over the grades listed in our bulletin "Silicates of Soda" and consult us without obligation about the right silicates for your detergents.

PHILADELPHIA QUARTZ COMPANY

General Offices and Laboratory: 125 S. Third St., Philadelphia, Pa.
Chicago Sales Office: Engineering Bldg. Distributors in 60 cities.
Sold in Canada by National Silicates Ltd., Toronto, Ontario.

REG. U.S. PAT. OFF.

P. Q. SILICATES OF SODA

PERSONAL AND IMPERSONAL

Kranich Soap Co., Brooklyn, N. Y., is installing twenty thousand dollars' worth of new equipment for use in the manufacture of potash soap specialties. A complete new steam and power plant is being built on property adjoining its present factory.

Victor H. Berman, president of Onyx Oil & Chemical Co., Jersey City, N. J., textile soaps and specialties, was guest of honor at a testimonial dinner given recently to celebrate his inductance into office as a member of the Interstate Park Commission.

The eleventh annual exhibition of soap sculptures, sponsored by Procter & Gamble Co., opened in the R C A Building at Rockefeller Center, New York, June 4. Prizes in the annual soap sculpture contest were awarded on the opening day of the exhibit.

Sterling Soap Co., 114 S. Commercial St., St. Louis, Mo., announce the appointment of Thomas McLaughlin as sales manager. The company makes a cold water cleaner under the name Cryo which is distributed through grocery jobbers and department stores.

Warren M. Persons, consulting economist, has recently issued a 12-page booklet under the title "Why The American People Should Oppose The Excise Tax Increasing The Cost of Soap". Permission to reprint the pamphlet may be obtained by anyone interested in giving further publicity to Mr. Persons' views.

Capitalized at fifty thousand dollars, the Colfanite Products Co. was recently incorporated at Seattle, Wash., to deal in chemical products. Incorporators are George W. Waters, M. F. Nicholson and Frank Hobbs.

E. L. King, president of J. R. Watkins Co., Winona, Minn., was expected to arrive in San Francisco from Japan about June 6, on his way home from Australia. He was accompanied on his trip by Mrs. King and Ralph G. Boalt, vice-president of the company.

The Home Service Company, 388 Allyn Street, Akron, Ohio has been organized by Solon C. Thayer to pack and distribute home supplies including soaps, cleansers and related sanitary specialties.

Walter P. Susslin, formerly advertising manager of Vince Laboratories, dental preparations and antiseptics, is now associated with Lorate Company, New York, in a similar capacity.

J. M. Heck, Colgate-Palmolive-Peet Co., Ltd., was elected chairman of the Oil, Fat and Soap Group of the Toronto Chemical Association at the recent annual meeting. L. B. Zimmerman, Procter & Gamble Co. of Canada, is vice-chairman, and H. W. Lemon, Ontario Research Foundation, is secretary.

J. Baxter Gardner has been appointed assistant advertising manager of the Pepsodent Company, Chicago. He has been a member of the company's advertising department for the last four years. Walter W. Templin has resigned as a director and vice-president of Pepsodent.

Nelson Littell, of the patent law firm of Hammond & Littell, New York, sailed on the *Albert Ballin*, May 30, for a six weeks trip to Germany on business for the American Hyalsol Corporation, which is the owner of the United States patent rights on the sulfonated higher alcohols now manufactured and sold in the United States by the Du Pont Co. and Procter & Gamble Co.

Phosphate Products Corporation, Richmond, Va., a subsidiary of Virginia Carolina Chemical Company, and manufacturers of trisodium phosphate, "V-C" cleanser compounds and other phosphate products, have established a New York sales office at 233 Broadway. The office is in charge of H. Muller Touraine. The telephone number is COrtland 7-1245.

A Blanque, President of Bruno Court, Grasse, France, arrived in New York on the steamer "*Conte di Savoia*," June 6, for a short stay in America. Mr. Blanque is visiting his selling agents, Naugatuck Chemical, and will bring to the trade some news concerning the products of both Bruno Court and C.A.P.P. As Mr. Blanque left Grasse at the finish of the rose and orange blossom crops and as the distillation of lavender will be started next month, he has some ideas concerning their value for the near future. Mr. Blanque also brings late reports concerning the oil of geranium African market.

Lever Brothers are to conduct a midwest sales and advertising campaign in the near future that will embrace some 650 grocery stores in Iowa, Missouri and Minnesota, affiliated with the Grocers Wholesale company. Plans for the campaign were outlined recently at a meeting held in Des Moines, Iowa, by E. W. Sargent, Chicago, regional manager.

American Ammone Co., cleaning compounds, has moved from 60 Warren St., New York, to 230 West St.

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SALES AND MERCHANDISING

Procter & Gamble Co. and Gotham Silk Hosiery Co. will shortly launch a joint advertising campaign in national magazines, featuring a tie-up between "Ivory Flakes" and "Adjustable" silk stockings. Copy will make a special offer of a $1.15 pair of "Adjustables" for 50 cents and three "Ivory Flakes" box-tops. The soap angle will feature "stocking satisfaction," or in other words, the beauty and long wear resulting from "Ivory" Flakes washings.

Soap sculpture built a window display for Olds, Wortman & King, large department store of Portland, Ore., recently. The promotion department of the large store conducted the soap sculpture contest among the children of Portland, and incidentally sold to the embryo sculptors the material for their work.

Cardinal Laboratories, Inc., Chicago, makers of "Rite-Way" white shoe cleaner, are sponsoring a contest in which $1,000 in cash prizes will be offered for the best name for a picture wrapped around each bottle of their product.

Philip Klein, Inc., Philadelphia agency, is handling the advertising of the "New Alcolite" tooth powder, which is being tested in the Philadelphia market.

Procter & Gamble Co. has recently opened a reorganized district office for western New York State in Syracuse, with W. D. Curren in charge. The new office will take charge of credit, accounting and shipping work for the whole state, with the exception of the metropolitan district.

The most intensive effort ever made by Colgate-Palmolive-Peet Company on "Super Suds" is now being put into a newspaper campaign in some 110 Sunday newspapers, a nation-wide radio broadcast and a letter writing contest.

Gem Products Sales Co., Camden, N. J., has entered into a stipulation with the Federal Trade Commission to stop misleading representations in advertisements of a cleansing preparation called "Laundry Gems". The company agreed to cease asserting that by use of its preparation clothes can be laundered without rubbing or scrubbing, or can be soaked clean, or that dirt, grime and grease spots disappear as if by magic. Advertisements will no longer claim that the preparation will add strength or wear to clothes or will prevent woolens or flannels from shrinking.

Yardley & Co., Ltd., New York, is bringing out a new "Suntan Oil" and a "Sunproof Lotion".

Armand Company, Des Moines, Iowa, is this year celebrating its 20th anniversary. It is understood that a special anniversary deal is being planned.

Advertising of Solon Palmer, New York, perfumer, is now being handled by Samuel C. Croot Company, New York agency.

SOAP SALE
Colgate's White Rose Soap Now 5¢
Colgate's Lilac Imperial Soap Now 5¢
Colgate's Big Bath Soap Now 5¢
Colgate's Charms Soap Now 5¢
Colgate's Gardenia Soap Now 5¢
Palmolive Soap Now 5¢
Cashmere Bouquet Soap Now 10¢
Colgate's Old Colonial Lavender Soap Now 5¢
CASHMERE BOUQUET SOAP 10¢ 3 FOR 27¢
SOAP SALE FEATURING COLGATE'S 5¢ 6 for 29¢
CASHMERE BOUQUET SOAP 10¢ 3 FOR 27¢

An "eye-stopper" window display for the retail drug store which has had unusual success in boosting sales of toilet soaps, according to Manning O'Connor of the Colgate-Palmolive-Peet Co. Featured chiefly are Cashmere Bouquet, Palmolive, Colgate's Giant Bath, and the various other C-P-P perfumed toilet soaps.

RECORD OF TRADE-MARKS

The following trade-marks were published in the May issues of the *Official Gazette* of the United States Patent Office in compliance with Section 6 of the Act of September 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of publication. As provided by Section 14, fee of ten dollars must accompany each notice of opposition.
phate has been used.

TRADE MARKS FILED

ALKA-DENT—This on reverse plate describing denture cleansing powder. Filed by Alkadent Co., L. I. City, N. Y., Nov. 19, 1934. Claims use since June, 1933.

ORIENTAL—This in solid letters describing shoe polish. Filed by Oriental Laboratories, Chicago, March 6, 1935. Claims use since June 1, 1924.

MAGIC RUB—This in solid letters describing polishing powder. Filed by Samuel J. Gross, Brooklyn, March 6, 1935. Claims use since March 1, 1935.

KOOBAY (CUBE) ROOT—This together with design describing insecticidal materials. Filed by William J. Dennis, Des Moines, Oct. 22, 1934. Claims use since April 1, 1934.

PARAMOUNT T-N-T—This in solid letters together with sketch showing falling insects, describing insecticides. Filed by Charles E. Mueller, Cedar Rapids, Iowa, Dec. 17, 1934. Claims use since June 15, 1932.

FUN—This in solid letters together with other words describing deodorant, cleaner and disinfectant. Filed by Kenbel Products, Philadelphia, March 6, 1935. Claims use since Jan. 12, 1935.

SKETCH SHOWING RAT MARKED WITH CROSS—Describing rodent exterminating preparation. Filed by West Disinfecting Co., L. I. City, N. Y., March 6, 1935. Claims use since May 3, 1934.

JABON EL GALLO—This in solid letters with sketch of chicken, describing soap. Filed by John T. Stanley Co., New York, Dec. 11, 1934. Claims use since Feb. 1, 1916.

LA CANTANA—This in solid letters describing soaps. Filed by Castile Toiletries, Inc., New York, Jan. 28, 1935. Claims use since Jan. 3, 1935.

PAL—This in solid letters describing soaps. Filed by Cincinnati Soap Co., Cincinnati, Feb. 23, 1935. Claims use since Jan. 4, 1935.

ALURA—This in outline letters with sketch of girl, describing soaps. Filed by J. T. Robertson Co., Syracuse, Feb. 23, 1935. Claims use since May 17, 1934.

HENDERSON'S — This on reverse plate, with words "Shoe Groom" in script, describing shoe polish. Filed by Henderson Bros. Corp., Johnstown, Pa., March 18, 1935. Claims use since Feb. 1, 1935.

"CONTINENTALE" — This in solid letters describing soaps and shaving creams. Filed by Coty, Inc., Wilmington, March 28, 1935. Claims use since Dec. 3, 1934.

COUNTESS POTOCKA — This in outline letters, with portrait of the Countess, describing shampoo. Filed by Cataract Chemical Co., Buffalo, Mar. 23, 1934. Claims use since Mar. 5, 1934.

SAN-O-GEN—This in solid letters describing antiseptic powder. Filed by Diehl Research Laboratories, Los Angeles, Sept. 17, 1934. Claims use since Aug. 28, 1934.

JELOPHEN—This in solid letters describing antiseptic jelly. Filed by Michele Conza, Summit, N. J., Nov. 30, 1934. Claims use since Oct. 29, 1934.

JOE CROSS—This in script, within outline cross, describing insecticide. Filed by Joe Cross, Bellington, W. Va., Mar. 25, 1935. Claims use since Mar. 20, 1935.

THREADS—This in solid letters describing soap. Filed by Carman & Co., New York, Mar. 8, 1933. Claims use since Feb. 17, 1933.

"TREBLA"—This in outlined letters describing polish. Filed by Albert Keilbach, Yonkers, N. Y., Mar. 6, 1935. Claims use since Jan. 2, 1934.

WHITE O — This in solid letters describing shoe cleaner. Filed by L. Perrigo Co., Allegan, Mich., Mar. 16, 1935. Claims use since April 1, 1934.

BLUE MONDAY—This in solid letters describing water softener. Filed by Blue Monday Products Co., St. Louis, Dec. 12, 1934. Claims use since June 15, 1918.

TRIXO — This in heavy script describing washing crystals. Filed by Trixo Co., Los Angeles, Feb. 15, 1935. Claims use since July 21, 1934.

LO-BAX—This in outlined letters describing germicide, disinfectant and deodorizer. Filed by Mathieson Alkali Works, Apr. 2, 1935. Claims use since Mar. 19, 1935.

PUROFANE—This in solid letters describing cleaning and polishing preparation. Filed by Pure Oil Co., Chicago, Jan. 17, 1935. Claims use since Jan. 14, 1935.

HIG—This in solid letters describing furniture polish. Filed by Hig Furniture Polish Co., Brooklyn, Mar. 4, 1935. Claims use since Jan. 7, 1935.

"AMCHEM"—This in solid letters describing polishes and detergents. Filed by American Chemical Paint Co., Ambler, Pa., Nov. 5, 1934. Claims use since April 17, 1934.

SANIWAX—This in solid letters describing sweeping compound. Filed by Loyd L. Shafer, Council Bluffs, Iowa, Mar. 28, 1935. Claims use since March, 1934.

TATTOO—This in outlined letters describing soaps. Filed by Tattoo, Inc., Chicago, April 5, 1935. Claims use since March 4, 1933.

KAYCO—This in solid letters describing cleaning prep-

aration. Filed by Kay Tee Products Co., Brooklyn, April 13, 1935. Claims use since Oct. 5, 1934.

Joss—This in solid letters describing beer pipe cleaning compound. Filed by Joss Equipment & Service Corp., New York, Mar. 21, 1935. Claims use since Oct. 29, 1934.

Brocks—This in solid letters describing tooth powders. Filed by L. M. Brock & Co., Lynn, Mass., Apr. 11, 1935. Claims use since Dec. 26, 1934.

TRADE MARKS GRANTED

323,859. Insecticides. Stanco, Inc., New York. Filed December 10, 1934. Serial No. 359,153. Published February 26, 1935. Class 6.

323,860. Insecticide Repellants. Stanco, Inc., New York. Filed December 10, 1934. Serial No. 359,152. Published February 12, 1935. Class 6.

323,870. Germicide and Antiseptic. K. & J. Laboratories, Long Island City, N. Y. Filed November 5, 1934. Serial No. 357,909. Published February 26, 1935. Class 6.

323,875. Antiseptic Jelly. Russell Wallace Co., Philadelphia. Filed October 30, 1934. Serial No. 357,674. Published February 12, 1935. Class 6.

323,884. Antiseptic Ointment. Nox Chemical Co., Seattle, Wash. Filed November 28, 1934. Serial No. 358,715. Published February 26, 1935. Class 6.

323,912. Insecticides. Black Flag Co., Baltimore. Filed January 22, 1935. Serial No. 360,557. Published February 26, 1935. Class 22.

323,931. Paste for Cleaning the Skin and Dental Cream. Labbe Products Manufacturers, Casper, Wyo. Filed February 8, 1934. Serial No. 347,144. Published February 12, 1935. Class 6.

323,968. Antiseptic. Ostro Research Laboratories, New York. Filed December 31, 1934. Serial No. 359,810. Published February 26, 1935. Class 6.

323,972. Dentifrice. Albert L. Calder Co., Providence, R. I. Filed December 31, 1934. Serial No. 359,778. Published February 26, 1935. Class 6.

323,993. Germicidal and Antiseptic Preparation. Esther W. Hollenbeck, Rhinelander, Wis. Filed January 18, 1933. Serial No. 334,058. Published February 26, 1935. Class 6.

324,201. Insecticides, Fungicides, Fumigants, Disinfectants. Röhm & Haas Co., Philadelphia. Filed November 28, 1934. Serial No. 358,746. Published February 26, 1935. Class 6.

324,202. Insecticides, Fungicides, Fumigants, Disinfectants. Röhm & Haas Co., Philadelphia. Filed November 28, 1934. Serial No. 358,747. Published February 26, 1935. Class 6.

324,337. Shampoo and Deodorizing and Insecticide Powder for Dogs and Cats. Happy Bird Food Products Co., New York. Filed December 18, 1934. Serial No. 359,441. Published February 26, 1935. Class 6.

324,353. Preparation for Bleaching, Washing, Sterilizing and Disinfecting. Nu-Era Cleansing Co., Pittsburgh. Filed January 3, 1934. Serial No. 345,608. Published February 26, 1935. Class 6.

324,444. Detergent and Polishing Materials—Sherman Products Co., Chicago. Filed November 19, 1934. Serial No. 358,408. Published March 5, 1935. Class 4.

324,449. White Shoe Cleaner. Nu-Di Products Co., Cleveland. Filed January 14, 1935. Serial No. 360,240. Published March 5, 1935. Class 4.

324,466. Insecticide. Central City Chemical Co., Chicago. Filed October 21, 1931. Serial No. 320,251. Published January 5, 1932. Class 6.

324,487. Insecticides. McCormick & Company, Baltimore. Filed January 12, 1935. Serial No. 360,178. Published March 5, 1935. Class 6.

324,526. Liquid and Wax Polish. Stain-Ox Co., Roselle, N. J. Filed December 13, 1934. Serial No. 359,283. Published March 5, 1935. Class 16.

324,534. Paste Cleaner. Clean Surface Products Co., Chicago. Filed April 9, 1934. Serial No. 349,709. Published March 5, 1935. Class 4.

324,538. Cleaner for Furniture and Automobile Upholstery. Colorglo Products, Whittier, Calif. Filed December 21, 1934. Serial No. 359,537. Published March 5, 1935. Class 4.

324,564. Insecticides. Aut-B-Gon Products Co., Los Angeles. Filed December 10, 1934. Serial No. 359,102. Published March 5, 1935. Class 6.

324,586. Moth and Insect Preventatives and Disinfectants. Mothozone Co., New York. Filed December 27, 1934. Serial No. 359,700. Published March 5, 1935. Class 6.

324,589. Shaving Cream and Shaving Soap. Treet Safety Razor Corp., Newark, N. J. Filed December 28, 1934. Serial No. 359,735. Published March 5, 1935. Class 4.

324,662. Wall Paper Cleaner. Cleveland Cleaner and Paste Co., Cleveland. Filed January 19, 1935. Serial No. 360,432. Published March 12, 1935. Class 4.

324,673. Cleaner. Sunbeam Laboratories, Cleveland. Filed January 31, 1935. Serial No. 360,913. Published March 12, 1935. Class 4.

324,699. Toilet Soap. Ensemble Manufacturing Co., Washington, D. C. Filed January 27, 1934. Serial No. 346,633. Published March 19, 1935. Class 4.

324,712. Glass and Metal Polish. Joseph P. Rosenlicht, Brooklyn. Filed January 9, 1935. Serial No. 360,078. Published March 19, 1935. Class 4.

324,747. Paste Soap. Speed-Kleen Manufacturing Co., Seaford, N. Y. Filed November 17, 1934. Serial No. 358,339. Published March 19, 1935. Class 4.

324,756. Polish. Colorglo Products, Whittier, Calif. Filed August 18, 1934. Serial No. 355,140. Published March 19, 1935. Class 16.

324,761. Cleaning Compound. Interstate Laboratories, Detroit. Filed July 20, 1934. Serial No. 354,124. Published March 19, 1935. Class 4.

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130. Johnson Automatic Sealer Co., Battle Creek, Mich., is bringing out a new fully automatic wrapping machine whose two principal features are said to be its low cost and its adaptability to wrapping packages of various sizes, thus making it possible for use by manufacturers with relatively limited production, as well as by manufacturers with a large but varied production. The machine is of the convertible type and adaptable to different needs. Wrapping speed ranges from 30 to 50 packages per minute. Full details are available.

131. B. F. Gump Co., Chicago, has issued a catalog illustrating materials and equipment available, including belting, pulleys, scales, bag trucks, car movers, portable electric blowers, etc. Copies are available on request.

132. Binks Mfg. Co., Chicago, has issued a new 8-page bulletin containing complete data on spray nozzles for industrial use. Much new data on the use of spray nozzles in the field of air conditioning is included in the bulletin, copies of which are available.

133. Dow Chemical Co., Midland, Mich., has issued a folder "Chemical Progress" describing the results of research work carried on in various fields by Dow chemists. A particular feature of the book are the pages on "Dowmetal", called the world's lightest structural metal. Copies are available.

134. Kennedy Car Liner & Bag Co., Shelbyville, Ind., is introducing a new soap bag for use in the soap plant in stripping frames after soap has become seasoned. The bag is chemically treated so it will be unaffected by the soap. With the use of the bag, it is said, frames can be used over in shorter time leaving the bag of soap set to cool. When soap is ready to use bag can be removed, leaving a clean block of soap, the scrap of which can be reworked to advantage because of the elimination of dirt and foreign particles.

New Patents

Conducted by

Lancaster, Allwine & Rommel

Registered Attorneys

PATENT AND TRADE-MARK CAUSES

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Complete copies of any patents or trade-mark registration reported below may be obtained by sending 25c for each copy desired to Lancaster, Allwine and Rommel. Any inquiries relating to Patent or Trade-Mark Law will also be freely answered by these attorneys.

No. 1,996,065, Fumigant. Patented April 2, 1935 by Joseph W. Dunning, Niagara Falls, N. Y., assignor to E. I. du Pont de Nemours & Company, Inc., Wilmington, Del., a corporation of Delaware. A process for the generation of hydrocyanic acid comprising mixing together water, metal cyanide, a metal salt the base of which forms an unstable cyanide and a substance capable of taking up water to form a solid, relatively insoluble hydrate.

No. 1,999,184, Soap Powder. Patented April 30, 1935 by Carleton Ellis, Montclair, N. J., assignor to Standard Oil Development Company, a corporation of Delaware. A detergent, consisting of a soap powder formed by heating and stirring a mixture of fatty acids, containing approximately 10 to 18 carbon atoms and derived by the oxidation of a substance of the class consisting of mineral hydrocarbon waxes and petroleum, with a substantially dry alkaline saponification agent of the class consisting of sodium carbonate and potassium carbonate to cause saponification of the acids.

No. 1,999,524, Composition of Matter for Exterminating Vermin. Patented April 30, 1935 by Tor Gustav Wilhelm Molin, Gottenborg, Sweden. A composition of matter intended for preventing vermin from dispersing along the piping of central heating plants and intended to be applied in the interstices between the piping and the bushings or tubes provided in the ceiling and wall ducts of the piping, comprising a mass having a semi-solid consistency at ordinary temperature and a melting point not lower than 70° C., and substantially above the maximum temperature to which the piping is to be subjected, and vermin poison mixed in with the mass.

No. 1,999,628, Wetting Out, Cleaning and Emulsion Agents in a Solid Grindable Form. Patented April 30, 1935 by Peter Friesenhahn, Berlin-Grunewald, Germany, assignor, by mesne assignments, to "Unichem" Chemikalien Handels A.-G., Zurich, Switzerland, a corporation of Switzerland. A solid grindable detergent comprising Turkey-red oil, methylhexaline, tetra-hydronaphthalene sulphonate of sodium and dehydrated tri-sodium phosphate.

(Turn to Page 57)

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CONTRACTS AWARDED

Awards have recently been made as follows by the U. S. Army Quartermaster at Fort Sam Houston, Texas, on bids for soaps, cleansers, etc.: Colgate-Palmolive-Peet Co., 18,180 lbs. soap chips, at 8.02c; Collins Co., San Antonio, 29,340 lbs. soap chips at 6.248c; Pacific Alkali Co., Los Angeles, 3,360 lbs. laundry soda, 3.015c; and Gulf Coast Chemical Co., Houston, 19,500 lbs. laundry soda, 2.05c.

Day & Frick, Philadelphia, has been awarded a contract by the St. Louis U. S. Army Quartermaster, covering 2,736 cakes (11-oz.) of grit soap, type B, at a price of 2.25c. Colgate-Palmolive-Peet Co. awarded 56,820 lbs. ordinary unwrapped laundry soap at 3.733c.

Awards have recently been made as follows on soaps for U. S. Engineers, Wilmington, N. C.: S. Weinstein Supply Company, New York, 200 pails of soap powder, $179.92, ½%; Colgate-Palmolive-Peet Company, Jersey City, 100 cases hand grit soap, $125, 2%; Swift & Co., Wilmington, 200 boxes of laundry soap, $325, 2%, and 100 cases of toilet soap, $131.00.

American Cyanamid & Chemical Corp., New York, has recently been awarded a contract for 6,600 lbs. dibasic sodium phosphate for the U. S. Army Air Corps, Wright Field, at a price of 2.45c. Welch, Holme & Clark Co. awarded 8,400 lbs. sodium metasilicate at 3.45c.

Awards have recently been made as follows by the Brooklyn U. S. Army Quartermaster on soaps, cleansers, etc.: Day & Frick, 48,700 lbs. grit cake soap, 3.2c. Kirkman & Sons, 1,500,000 lbs. laundry soap, 3.83c. Procter & Gamble, 28,125 lbs. toilet soap, 6.59c. J. L. Prescott Co., 14,063 lbs. stove polish, 9.5c. B. T. Babbitt, Inc., 55,008 cans caustic soda, 3.981c. Smith & Nichols, 7,500 lbs. candles, 9.45c.

Colgate-Palmolive-Peet Co. has recently been awarded a contract for 8,000 lbs. grit soap for U. S. Treasury Dept., Washington, at a price of 7.5c lb., less 2 per cent.

Kirkman & Son, Brooklyn, awarded 50,000 lbs. fresh water soap for Light House Service, S. I., N. Y., at 3.84c delivered.

Armour & Co. has been awarded contracts covering 48,000 lbs. soap powder at 2.46c and 60,000 lbs. toilet soap at 6.9 and 7.3c for U. S. Post Office Department, Washington.

Armour & Co., Chicago, has been awarded a contract covering 100,000 lbs. laundry soap for the U. S. Army Quartermaster at Chicago at a price of 3.49c. Day & Frick, Philadelphia, awarded 40,000 cakes grit soap at 1.85c. Iowa Soap Co., Burlington, Iowa, awarded 3,200 cakes toilet soap at 2.45c. Swift & Co., Chicago, awarded 2,286 cans scouring powder at 2.125c and 2,000 lbs. grit soap at 2.44c.

DuBois Soap Co., Cincinnati, was low bidder on a quantity of automobile soap for the U. S. Post Office Department, Washington, in a recent bidding, entering prices as follows: 75-10 lb. cans, 5.81c; 49-50 lb. cans, 4.19c; 11-half barrels, 3.69c; and 31-500 lb. barrels, 3.56c.

CANADIAN SOAP OUTPUT DECLINES

Canadian production of soaps and washing compounds declined about three per cent in 1934, as compared with 1933, according to figures just released by the Dominion Bureau of Statistics, Canadian Department of Trade and Commerce. The 1933 production was valued at $14,263,234, with the comparative figure for 1934 being $13,834,496. The number of plants engaged in soap manufacture increased from 93 in 1933 to 99 in 1934, and the number of employees from 1,776 to 1,821. Salaries and wages totaled $2,353,734 in 1934, as compared with $2,302,315 in the previous year. The polish and dressing industry showed a gain in output. The value of 1934 production was $1,904,766, as compared with $1,779,843 in 1933, an increase of 7 per cent.

Natives of New Zealand, after a year's experiment with other brands, have switched back to Canadian soap. Canada formerly supplied New Zealand with large quantities of soap, but in 1933 none was exported there from the Dominion. Statistics just issued at Ottawa show that in 1934 New Zealand imported from Canada soap to the value of approximately $23,705.

More than 60,000 druggists in the United States and Canada recently received a kit containing sample packages of the new "Pepsodent" tooth powder. The Pepsodent Company, Chicago, allowed the dealers to sell the two 25-cent packages and one 50-cent package and keep the total selling price.

H. W. Dieterich, chief chemist, J. I. Holcomb Manufacturing Co., Indianapolis, recently returned to his home from the Methodist Hospital, Indianapolis, after a three months' illness. He is expected to return to his office in the near future.

Market Report on

TALLOW, GREASES, AND OILS

(*As of June* 10, 1935)

NEW YORK—There was little interest in the market for soap making oils and fats this period, with buyers apparently having a fairly good position as to stocks and being willing to wait for a time to see what further consequences may result from the Supreme Court decision. Tallow has moved higher again, pushing upward to a new high mark for the current movement, with coconut oil taking the opposite course and dropping some of the price gain registered last month. A new development of importance is the approaching opening of a tallow futures market on the floor of the New York Produce Exchange. It was at first expected that the market might be operating by this time, but the prospect now seems to be that it will open not before late this month or early in July. No new developments have occurred as yet in the legislative picture, although it is understood that the renderers are still working on legislation to take the place of the withdrawn sections in the Bland Bill which proposed a tax on imports of tallow.

COCONUT OIL

With copra arrivals reported increasing, and buyers showing less interest in coconut oil, the market for both raw material and oil moved several pegs downward this period. Copra is now quoted at 2¾c per pound, a drop of half a cent, and New York Manila tanks of oil are down to a basis of 5c, representing a drop of three-quarters of a cent. Buyers are pursuing a waiting policy.

CORN OIL

Corn oil also eased off moderately under the influence of the Supreme Court decision, which had a general weakening tendency on most all commodity markets. Mill tanks are currently quoted at 9c.

PALM OIL

Palm oil was somewhat firmer on spot and moderately higher prices were quoted. The range is now from 4¾c to 5c. At previous levels both palm and palm kernel oil were attractively priced for the soap kettle, particularly in view of the higher price which prevailed on competing oils a month ago. A number of buyers seem to have discovered this, and the resultant rise in the palm oil market is the result.

TALLOW

Tallow reached a new high late last month, with sales reported at 7¼c lb. Less competition has been felt recently from imported tallow, and a second strengthening factor in the market has been the lighter offerings made by domestic producers. Late this month or early in July trading in tallow futures is expected to start on the New York Produce Exchange.

The thirteenth annual sports outing of the Oil Trades Association of New York was held at the Pelham Country Club, Pelham Manor, N. Y., Tuesday, June 11. Golfers competed in two classes as well as in a kickers' handicap. A baseball game was also held, with arrangements for this feature in charge of Philip C. Meon. Albert J. Squier acted as general chairman of the entertainment committee, with Geo. Getchell, G. A. Wharry, J. F. Renick, W. M. Osborn and H. F. Wilhelm serving on the golf committee. Later in the season, September 10, a second golf and sports outing will be held at Pelham Country Club.

AMERICA SHARES ARGENTINE SOAP MARKET

The soap industry in Argentina has been well established for many years, owing to the available supplies of packing-house by-products. American and British capital plays an important part in this industry, but local capital also is well represented. During 1934 the best advertised toilet soap was a well known American brand, made in Argentina by an Argentine firm for the local branch of an American firm. This brand was followed by a local brand "Le Sancy" and then by a well known British brand. Of the nine best advertised brands of dentifrices, five were well known American brands, all made in Argentina either by branches or custom laboratories. During 1932 there were 25 establishments in this field, with invested capital of 5,676,788 paper pesos. Of the 65,000 metric tons of raw materials used, 51,000 were produced locally and 14,000 imported. Soap production was over 40,000 tons and together with candle production was valued at around 18,000,000 paper pesos.

SOAP EMPLOYMENT REACHES PEAK

Citing substantial employment and payroll gains in the soap and glycerine industries, the U. S. Department of Labor has issued statistics which indicate that the peak of employment since the depression period was reached in January, 1935, when 18,100 workers were on payrolls totaling $342,500. The highpoint for payrolls was for the month of October, 1934, when wages totaled $357,500. When the New Deal was inaugurated in March, 1933, the soap and glycerine industries were employing 13,200 workers, with payrolls amounting to $252,500. A survey of December, 1934, showed 16,100 employees, receiving wages amounting to $342,800.

Stocks of crude cotonseed oil on hand in United States as of April 30, 1935, totaled 60,668,662 lbs., as compared with 109,327,797 lbs. a year previous. Stocks of refined oil totaled 577,448,973 lbs., April 30, 1935, as against 843,167,543 lbs., April 30, 1934.

Market Report on

SOAP AND DISINFECTANT CHEMICALS

(As of June 10, 1935)

NEW YORK—The period just closed was a quiet one in the market for soap and disinfectant chemicals. Seasonal influences are already beginning to make themselves felt, and in addition there was another influence this month in the Supreme Court decision to keep buyers on the fence. Although there are no price factors in this market dependant on codes, which the lapsing of the codes could be expected to affect, there could still be noted a general tendency among buyers to postpone taking any action until the general industrial and legislative picture became a little clearer.

ALKALIS

The alkali market was a rather quiet affair this month from a demand standpoint, with soap makers taking routine deliveries and their withdrawals holding at a comparatively high level when compared with totals for other consuming industries. Prices were unchanged and firmly maintained at previous levels.

COAL TAR PRODUCTS

One of the most prominent features of the coal tar derivative market this period was the firmness of crude naphthalene. Foreign stocks are understood to be rather low—quite different from the situation a year ago, so that there is no tendency for the imported product to lower domestic prices. Stocks of refined naphthalene continue to move out in good volume.

GLYCERIN

This market seems to be about in balance at the moment, with no changes looked for unless future developments affect the price of soaplye crude, which is now quoted from 9½ to 10c lb.

ROSIN

Indications are that the rosin market will be unaffected by the recent NRA decision. It was thought for a time that the sales allotments and crop control plans might be affected, but the industry is now proceeding on the basis that the present set-up will be maintained. There was but little change in rosin prices this month.

♦

New building operations are reported by National Can Company, at their plant at Maspeth, L. I. Construction work involving an expenditure of $360,000 is now under way. This company has recently completed extensive additions to its plants at Boston, Baltimore and Hamilton, Ohio, as part of a program of expansion necessitated by increasing trade volume.

♦

Net operating profits of Monsanto Chemical Company, St. Louis, for the quarter ended March 31 were $757,195 which, after subsidiary preferred dividend requirements, amounts to 85.3c a share on the 864,000 shares outstanding. First quarter earnings for 1934 were $674,117, or 78c a share.

♦

Orlando F. Weber, chairman of the board of Allied Chemical & Dye Corp., resigned this position and also relinquished his membership on the board last month. Mr. Weber was one of the founders of Allied Chemical & Dye Corporation in 1920. He was made president of the company at its organization and continued in that office until a year ago. He has been chairman of the board since 1931. H. F. Atherton, president of the company, was elected chairman in place of Mr. Weber and will serve as both chairman and president.

♦

FEWER NEW TURPENTINE CUPS SOLD

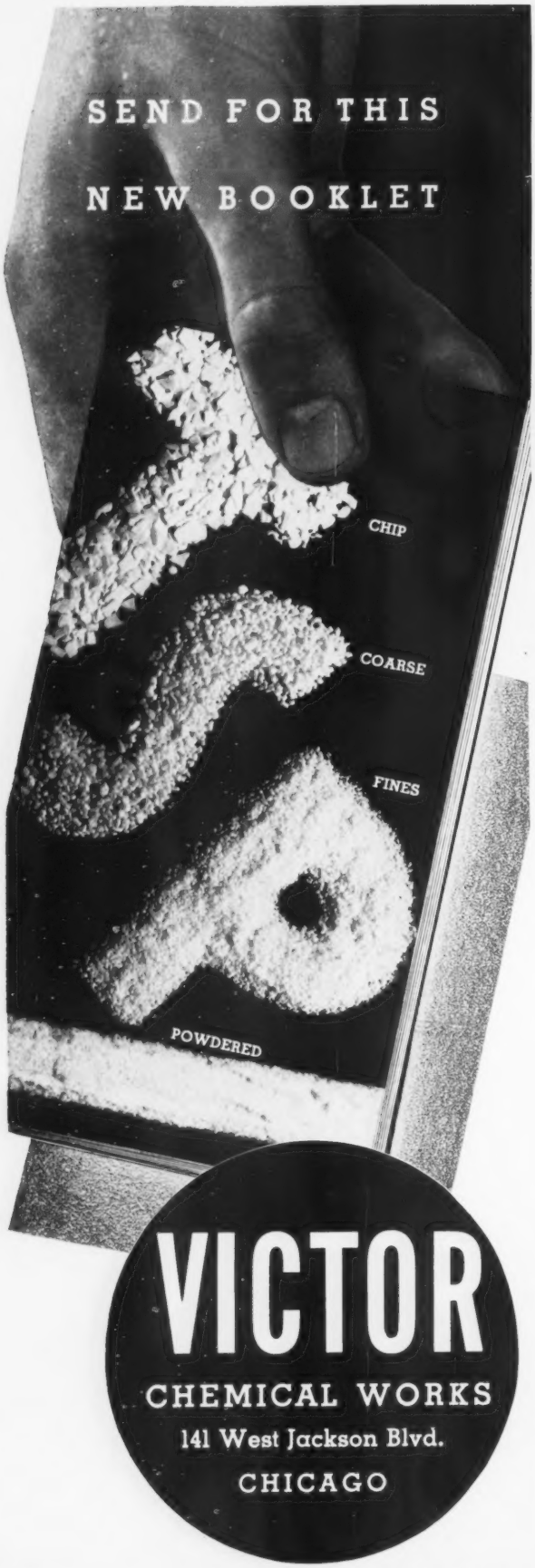
The U. S. Bureau of Chemistry and Soils, from its compilation of information furnished by the manufacturers of turpentine cups, reports that a total of 6,219,240 cups were sold last winter and this spring for use in gathering the 1935-36 crop of naval stores. Approximately 56 per cent of the cups sold were of metal and 44 per cent of clay. The total number of cups sold for the 1935-36 crop is 5,488,599 less than were sold for the 1934-35 crop. The average number of cups sold for the thirteen years, 1923-1936, approximated 14,071,036 per season. Sales of new cups for the last thirteen seasons were as follows:

1935–36	6,219,240
1934–35	11,707,839
1933–34	11,088,333
1932–33	3,620,000
1931–32	1,085,000
1930–31	11,178,800
1929–30	24,488,760
1928–29	12,589,000
1927–28	32,310,000
1926–27	20,500,000
1925–26	10,059,000
1924–25	13,249,000
1923–24	24,828,500

♦

DOW ACQUIRES CLEVELAND-CLIFFS

Dow Chemical Co., Midland, Mich., has acquired Cleveland-Cliffs Iron Co., Cleveland, manufacturers of wood chemicals and products including activated carbon. The company will be operated as the Cliffs-Dow Chemical Co. For the present the company's office in Cleveland will be continued in its present form with few changes in personnel. This gives the Dow Chemical Co. a third plant away from the main plant at Midland. A bromine establishment is operated on the southern coast and an iodine plant is located on the Pacific coast.



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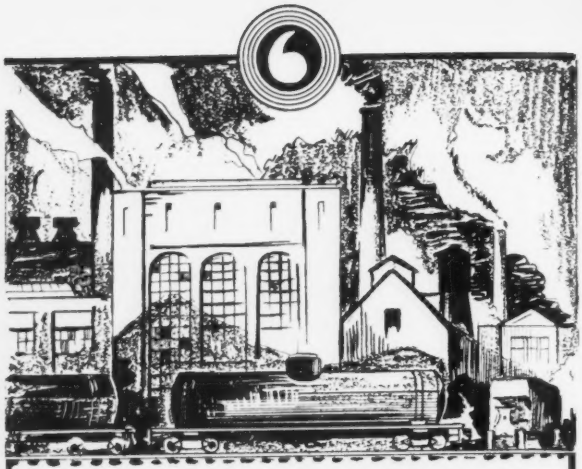

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Market Report on

ESSENTIAL OILS AND AROMATICS

(*As of June* 10, 1935)

NEW YORK—A factor of great importance in the market for essential oils this period was the governmental crisis in France. The reduction in French gold reserves and the difficulty being encountered in forming another stable governing group there make abandonment of gold and devaluation of the franc a possibility. In case of such action prices of essential oils of French origin would be affected immediately and a sharp drop in the whole essential oil list might be expected. With this threat hanging over the market, buyers were hesitant to enter into commitments which might prove within a few days to be very unfavorable ones. A second factor, which affected anise and cassia oils, was the easier tone in the silver market. With Chinese exchange lower, the recent advance in the price of both these oils was interrupted.

ANISE OIL

The advance in anise oil was interrupted this period, as silver bullion and Chinese exchange dropped. Whether this marks merely a temporary halt in the advance, or a reversal of the general trend, is not yet apparent. Quotations range currently from 52 to 62c per pound.

BERGAMOT OIL

Quotations were lower, at an inside price of $1.35 per pound this period, under the stress of competition.

BOIS DE ROSE OIL

One source of supply made a substantial reduction in the price of Cayenne oil this period, reducing the inside figure to $2.40. Brazilian oil was unchanged at $1.25 to $1.60 per pound.

CASSIA OIL

The reactionary tendency in silver caused an interruption this period in the recent rise in the price of cassia oil. Some factors seem to expect, however, that the advance will shortly be resumed.

CEDARLEAF OIL

Cedarleaf dropped to an inside price of 53c per pound in tins this period, as more competition developed locally.

LAVENDER OIL

The minimum price on lavender oil is now $3.00 per pound as the result of an advance which was announced about a month ago. Stocks still unsold are reported to be in strong hands and firmly held. The foreign market is being watched very closely in view of the French political crisis.

Les Usines de l'Allondon, S. A., Geneva, Switzerland, manufacturers of aromatic chemicals have opened an office at 11 West 42nd Street, New York. Charles M. Martin who recently spent several months at the Allondon plant in Grasse, France is in charge. In the near future Dr. A. Kaufmann, president of the concern, will be in New York.

◆

SCHIMMEL APPOINTS A. C. DRURY AGENT

Schimmel & Co., New York, has appointed A. C. Drury & Co., Chicago, as representative for the sale of the Schimmel line of essential oils, synthetics, perfume specialties, and flavors in the mid-western territory. It is intended to carry stocks of Schimmel products at the Drury headquarters in Chicago, so that deliveries to customers in the Middle West will be greatly facilitated. Mr. Drury organized his company in 1920 and since that time it has become well-known in the Chicago area. The Schimmel line is well known in the United States and the recently organized Schimmel & Co., under the direction of Gert Keller, general manager, is rapidly building up a sales and service organization. In addition to the line of Schimmel & Co., A.-G. of Miltitz, Germany, the company handles a line of essential oils and other raw materials of its own direct importation.

◆

Louis Levy, publisher of the *American Perfumer* for the past thirty years, has announced the affiliation of this monthly magazine for manufacturers of perfumes and toilet preparations with the Robbins publications. The Robbins group includes *Advertising and Selling, Advertising Arts, The American Printer, Gas Age Record, Industrial Gas* and *Gas Appliance Merchandiser*. A separate company will be formed to publish the *American Perfumer*, with M. C. Robbins as president, and Louis Levy and J. H. Moore as vice-presidents. Mr. Moore will also act as general manager of the *American Perfumer*. The present staff will continue on the publication, with S. L. Mayham as editor.

◆

A. J. Dedrick of the Albert Verley organization, Chicago, will in the future make his headquarters in New York where he will act as assistant to L. J. Zollinger, vice-president in charge of the eastern territory. Mr. Dedrick has been travelling in the mid-west for Verley, and will continue his contacts there.

◆

Coty, Inc., reports net profits of $89,761 for 1934, comparing with $222,776 in the year previous. The report states that heavy reserves for possible taxes have been set up.

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RED OIL
TALLOWS

Controlled Production:

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CURRENT PRICE QUOTATIONS

(As of June 10, 1935)

Minimum Prices are for car lots and large quantities. Price range represents variation in quotations from different suppliers and for varying quantities.

Chemicals

Acetone, C. P., drums	lb.	$ .11	$ .12½
Acid, Broic, bbls., 99½%	ton	95.00	100.00
Cresylic, 97½ dk., drums	gal.	.43	.44
97-99%, pale, drums	gal.	.46	.47
Low boiling grade	gal.	.64	.65
Oxalic, bbls.	lb.	.11½	.12¼
Adeps Lanae, hydrous, bbls.	lb.	.16	.18
Anhydrous, bbls.	lb.	.17	.19
Alcohol, Ethyl, U. S. P., bbls.	gal.	4.16	4.28
Complete Denat., No. 5, drums, ex.	gal.	.35½	.43½
Alum. Potash lump	lb.	.03½	.03¾
Ammonia Water, 26°, drums, wks.	lb.	.02½	.02¾
Ammonium Carbonate, tech., bbls.	lb.	.08	.12½
Bleaching Powder, drums	100 lb.	2.15	3.50
Borax, pd., cryst., bbls., kegs	ton	50.00	55.00
Carbon Tetrachloride, car lots	lb.	—	.05¼
L. C. L.	lb.	.07	.08½
Caustic, see Soda Caustic, Potash Caustic			
China Clay, filler	ton	10.00	25.00
Cresol, U. S. P., drums	lb.	.11	.11½
Creosote Oil	gal.	.11½	.12½
Feldspar (200 to 325 mesh)	ton	14.00	15.00
Formaldehyde, bbls.	lb.	.06	.07
Fullers Earth	ton	15.00	24.00
Glycerine, C. P., drums	lb.	.14	.14½
Dynamite, drums	lb.	.13¾	.14¼
Saponification, drums	lb.	.10½	.11
Soap lye, drums	lb.	.09½	.10
Hexalin, drums	lb.	—	.30
Kieselguhr, bags	ton	—	35.00
Lanolin, see Adeps Lanae.			
Lime, live, bbls.	per bbl.	1.70	2.20
Mercury Bichloride, kegs	lb.	.71	.76
Naphthalene, ref. flakes, bbls.	lb.	.04¾	.05¼
Nitrobenzene (Myrbane) drums	lb.	.09	.11
Paradichlorbenzene, bbls., kegs	lb.	.16	.25
Petrolatum, bbls. (as to color)	lb.	.02	.07¼
Phenol, (Carbolic Acid), drums	lb.	.14¼	.16
Pine Oil, bbls.	gal.	.59	.64
Potash, Caustic, drums	lb.	.06¼	.06½
Flake	lb.	.07	.07¼
Potassium Carbonate, solid	lb.	.07¼	.09½
Liquid	lb.	.03½	.03¾
Pumice Stone, powder	100 lb.	3.00	4.00
Rosins (600 lb. bbls. gross for net)—			
Grade B to H, basis 280 lbs.	bbl.	4.65	5.65
Grade K to N	bbl.	5.70	6.15
Grade WG and X	bbl.	6.45	7.45
Wood	bbl.	4.35	5.85
Rotten Stone, pwd. bbls.	lb.	.02½	.04½
Silica	ton	20.00	27.00
Soap, Mottled	lb.	.04⅛	.04⅜
Olive Castile, bars	lb.	.13	.19
powder.	lb.	.23	.30
Olive Oil Foot	lb.	.07	.07½
Powdered White, U. S. P.	lb.	.19	.21
Green, U. S. P.	lb.	.06½	.08
Tallow Chips	lb.	.07¼	.07¾
Whale Oil, bbls.	lb.	.05	.06
Soda Ash, cont., wks., bags, bbls.	100 lb.	1.23	1.50
Car lots, in bulk	100 lb.	—	$1.05
Soda Caustic, cont., wks., sld.	100 lb.	—	2.60
Flake	100 lb.	—	3.00
Liquid, tanks	100 lb.	—	2.25
Soda Sal., bbls.	100 lb.	1.10	1.30
Sodium Chloride (Salt)	ton	11.40	14.00
Sodium Fluoride, bbls.	lb.	.07¼	.08¾
Sodium Hydrosulphite, bbls.	lb.	.19	.20
Sodium Silicate, 40 deg., drum.	100 lb.	.80	1.20
Drums, 52 deg. wks.	100 lb.	1.35	1.75
Tar Acid Oils, 15-25%	gal.	.21	.24
Trisodium Phosphate, bags, bbls.	lb.	.03	.03½
Zinc Oxide, lead free	lb.	.06	.06¼
Zinc Stearate, bbls.	lb.	.20	.22

Oils — Fats — Greases

Castor, No. 1, bbls.	lb.	.10¼	.11
No. 3, bbls.	lb.	.09¾	.10½
Coconut			
Manila, tanks, N. Y.	lb.	—	.05
Tanks, Pacific coast	lb.	.04⅝	.04¾
Cod, Newfoundland, bbls.	gal.	—	.35
Copra, bulk, coast	lb.	—	.02¾
Corn, tanks, mills	lb.	.09	.09⅛
Cottonseed, crude, tanks, mill	lb.	.09	.09¼
PSY	lb.	—	Nom.
Degras, Amer., bbls.	lb.	.05¼	.06
English, bbls.	lb.	.04¾	.05½
Neutral, bbls.	lb.	.08	.11
Greases, choice white bbls., N. Y.	lb.	.07½	.08½
Yellow	lb.	.06⅝	.06¾
House	lb.	.06⅝	.06¾
Lard, City	lb.	.14	.14½
Compound tierces	lb.	.13	.13¼
Lard Oil,			
Extra, bbls.	lb.	—	.11¾
Extra, No. 1, bbls.	lb.	—	.11
No. 2, bbls.	lb.	—	.10¼
Linseed, raw, bbls., spot	lb.	.0970	.1010
Tanks, raw	lb.	—	.0910
Boiled, 5 bbls. lots	lb.	—	.1090
Menhaden, Crude, tanks, Balt.	gal.	.30	Nom.
Oleo Oil, No. 1, bbls., N. Y.	lb.	—	.12¾
No. 2, bbls., N. Y.	lb.	—	.11¾
Olive, denatured bbls., N. Y.	gal.	—	.83
Foots, bbls., N. Y.	lb.	.08¼	.08⅜
Palm	lb.	.04¾	.05
Palm Kernel, casks, denatured	lb.	.04½	Nom.
Peanut, domestic tanks	lb.	.09½	Nom.
Red Oil, distilled bbls.	lb.	.09⅛	.10½
Saponified bbls.	lb.	.09⅛	.10½
Tanks	lb.	—	.08¼
Soya Bean, domestic tanks, N. Y.	lb.	—	.09½
Stearic Acid,			
Double pressed	lb.	.11¼	.12¼
Triple pressed, bgs.	lb.	.14	.15
Stearine, oleo bbls.	lb.	.10	.10½
Tallow, special, f.o.b. plant	lb.	.07	—
City, ex. loose, f.o.b. plant	lb.	.07⅛	—
Tallow, oils, acidless, tanks, N. Y.	lb.	—	.10¼
Bbls., c/1 N. Y.	lb.	—	.10¾
Whale, refined	lb.	.07¾	.08

CASTOR OIL
COCOANUT OIL
CORN OIL
COTTONSEED OIL
LARD OIL
NEATSFOOT OIL
OLEIC ACID
-RED OIL
OLIVE OIL
OLIVE OIL FOOTS
PALM OIL
PALM KERNEL OIL
PEANUT OIL
RAPESEED OIL
ROSIN
SALAD OIL
SOYA BEAN OIL
SESAME OIL
TEASEED OIL
WHITE OLEINE
FATTY ACIDS
STEARINE
STEARIC ACID
GREASE
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Chicago Representative
A. C. DRURY & CO., 219 E. North Water Street, Chicago, Ill.

(*As of June 10, 1935*)

Essential Oils

Almond, Bitter, U. S. P.	lb.	$2.00	$2.50
Bitter, F. F. P. A.	lb.	2.25	2.75
Sweet, cans	lb.	.58	.60
Anise, cans U. S. P.	lb.	.52	.62
Apricot, Kernel, cans	lb.	.22	.25
Bay tins		1.25	1.50
Bergamot, coppers	lb.	1.35	1.65
Artificial	lb.	1.00	1.30
Birch Tar, rect. tins	lb.	.70	.75
Crude, tins	lb.	.12	.16
Bois de Rose, Brazilian	lb.	1.25	1.60
Cayenne	lb.	2.40	2.90
Cade, cans	lb.	.26	.30
Cajuput, native, tins	lb.	.50	.60
Calamus, tins	lb.	3.25	3.50
Camphor, Sassy, drums	lb.	—	.19
White, drums	lb.	—	.20
Cananga, native, tins	lb.	2.50	2.80
Rectified, tins	lb.	2.95	3.50
Caraway Seed	lb.	1.90	2.20
Cassia, Redistilled, U. S. P.	lb.	1.50	1.60
Cedar Leaf, tins	lb.	.53	.70
Cedar Wood, light, drums	lb.	.20	.27
Citronella, Java, drums	lb.	.28	.33
Citronella, Ceylon, drums	lb.	.27	.29
Cloves, U. S. P., tins	lb.	.90	.92
Eucalyptus, Austl., U. S. P., cans	lb.	.27	.30
Fennel, U. S. P., tins	lb.	1.00	1.25
Geranium, African, cans	lb.	4.90	7.00
Bourbon, tins	lb.	4.75	6.75
Hemlock, tins	lb.	.70	.75
Lavender, U. S. P., tins	lb.	3.00	7.00
Spike, Spanish, cans	lb.	1.00	1.60
Lemon, Ital., U. S. P.	lb.	1.10	1.50
Lemongrass, native, cans	lb.	.70	.80
Linaloe, Mex., cases	lb.	1.35	1.50
Nutmeg, U. S. P., tins	lb.	1.20	1.35
Orange, Sweet W. Ind., tins	lb.	2.00	2.45
Italian cop.	lb.	1.85	3.00
Distilled	lb.	.65	.70
Origanum, cans, tech.	lb.	.60	.70
Patchouli	lb.	2.75	3.50
Pennyroyal, dom.	lb.	1.85	1.90
Imported	lb.	1.35	1.70
Peppermint, nat., cases	lb.	2.65	3.00
Redis., U. S. P., cases	lb.	2.80	3.20
Petit, Grain, S. A. tins	lb.	.95	1.10
Pine Needle, Siberian	lb.	.85	.95
Rose, Natural	oz.	5.50	18.00
Artificial	oz.	2.00	3.00
Rosemary, U. S. P., tins	lb.	.32	.38
Tech., lb. tins	lb.	.28	.35
Sandalwood, E. Ind., U. S. P.	lb.	5.00	5.50
Sassafras, U. S. P.	lb.	.75	1.00
Artificial	lb.	.45	.50
Spearmint, U. S. P.	lb.	1.65	1.90
Thyme, red, U. S. P.	lb.	.58	1.02
White, U. S. P.	lb.	.65	1.10
Vetivert, Bourbon	lb.	7.50	8.50
Java	lb.	16.00	20.00
Ylang Ylang, Bourbon	lb.	4.60	7.00

Aromatic Chemicals

Acetophenone, C. P.	lb.	$1.25	$2.25
Amyl Cinnamic Aldehyde	lb.	1.75	2.50
Anethol	lb.	1.00	1.10
Benzaldehyde, tech.	lb.	.60	.65
U. S. P.	lb.	1.10	1.30
Benzyl, Acetate	lb.	.56	1.00
Alcohol	lb.	.65	1.15
Citral	lb.	2.55	2.65
Citronellal	lb.	2.05	2.50
Citronellol	lb.	2.10	2.65
Citronellyl Acetate	lb.	4.50	7.00
Coumarin	lb.	3.10	3.30
Cymene, drums	gal.	.90	1.25
Diphenyl oxide		.85	1.25
Eucalyptol, U. S. P.	lb.	.62	.65
Eugenol, U. S. P.	lb.	2.00	2.50
Geraniol, Domestic	lb.	1.25	2.00
Imported	lb.	2.00	3.00
Geranyl Acetate	lb.	3.00	3.50
Heliotropin	lb.	2.00	2.10
Hydroxycitronellal	lb.	3.50	9.00
Indol, C. P.	oz.	2.00	2.50
Ionone	lb.	3.60	6.50
Iso-Eugenol	lb.	3.00	4.25
Linalool	lb.	1.65	2.25
Linalyl Acetate	lb.	1.85	4.25
Menthol	lb.	3.50	3.60
Methyl Acetophenone	lb.	2.50	3.00
Anthranilate	lb.	2.15	3.20
Paracresol	lb.	4.50	6.00
Salicylate, U. S. P.	lb.	.40	.45
Musk Ambrette	lb.	4.75	6.00
Ketone	lb.	5.00	6.50
Xylene	lb.	1.50	2.50
Phenylacetaldehyde	lb.	4.80	8.00
Phenylacetic Acid, 1 lb., bot.	lb.	3.00	4.00
Phenylethyl Alcohol, 1 lb. bot.	lb.	4.00	4.50
Rhodinol	lb.	5.75	8.00
Safrol	lb.	.59	.60
Terpineol, C. P., 1,000 lb. drs.	lb.	.33	.35
Cans	lb.	.36	.37
Terpinyl Acetate, 25 lb. cans	lb.	.80	.90
Thymol, U. S. P.	lb.	1.40	1.50
Vanillin, U. S. P.	lb.	3.00	3.50
Yara Yara	lb.	1.30	2.00

Insecticide Materials

Insect powder, bbls.	lb.	.27	.30
Concentrated Extract			
5 to 1	gal.	1.69	1.72
15 to 1	gal.	4.84	4.88
20 to 1	gal.	6.45	6.50
30 to 1	gal.	9.48	9.56
Derris, powder—4%	lb.	.43	.46
Derris, powder—5%	lb.	.48	.51

Gums

Arabic, Amb. Sts.	lb.	.11½	.12½
White, powdered	lb.	.15½	.16½
Karaya, powdered No. 1	lb.	.08	.09
Tragacanth, Aleppo, No. 1	lb.	1.25	1.30
Sorts	lb.	.11	.12

Waxes

Bees, white	lb.	—	.33½
African, bgs.	lb.	.22	.23
Refined, yel.	lb.	.27	.28
Candelilla, bgs.	lb.	.11	.12
Carnauba, No. 1	lb.	.40	.42
No. 2, yel.	lb.	.39	.41
No. 3, chalky	lb.	.31	.32
Ceresin yellow	lb.	.36	.38
Paraffin, ref. 125-130	lb.	.04¼	.04½

Say You Saw It in SOAP!

THE average business house receives a great many inquiries for its products or services every year which cannot be attributed to any special source. A vast majority of these probably originate from some form of advertising but, due to the general tendency toward not mentioning the names of publications, cannot be directly traced.

Not long ago a manufacturer, using space in this magazine, received a number of inquiries during the week following publication. All were for a product which was advertised exclusively in SOAP. Less than half of the letter-writers mentioned SOAP, although all of them wrote because they saw the advertising in the magazine.

When you write to a manufacturer of raw materials, containers, bulk products or equipment in response to advertising in this publication, say you saw it in SOAP. The advertiser will appreciate it—and so will we!

The Publishers

NEW PATENTS

(*From Page 45*)

No. 1,999,629, Detergent. Patented April 30, 1935 by Peter Friesenhahn, Berlin-Grunewald, Germany, assignor, by mesne assignments, to "Unichem" Chemikalien Handels A.-G., Zurich, Switzerland, a corporation of Switzerland. A detergent having lathering and wetting-out properties comprising in combination an alkali metal phosphate and the sulphuric acid ester of a high molecular primary aliphatic fatty alcohol having lathering and detergent properties approximating those of the sulphuric acid ester of octadecyl alcohol.

No. 1,999,630, Detergent Compositions. Patented April 30, 1935 by Peter Friesenhahn, Berlin-Grunewald, Germany, assignor, by mesne assignments, to "Unichem" Chemikalien Handels A.-G., Zurich, Switzerland, a corporation of Switzerland. A detergent comprising approximately twenty-five parts of Turkey-red oil, twenty-five parts of soda ash, and fifty parts of trisodium phosphate, having a high detergent and wetting out property.

No. 1,999,631, Detergent Composition. Patented April 30, 1935 by Peter Friesenhahn, Berlin-Grunewald, Germany, assignor, by mesne assignments, to "Unichem" Chemikalien Handels A.-G., Zurich, Switzerland, a corporation of Switzerland. A detergent comprising a soap, together with a mixture of two parts of tri-sodium phosphate and one part of tetra-hydronaphthalenesulphonate of sodium.

No. 1,999,632, Detergent Composition and Process. Patented April 30, 1935 by Peter Friesenhahn, Berlin-Grunewald, Germany, assignor, by mesne assignments, to "Unichem" Chemikalien Handels A.-G., Zurich, Switzerland, a corporation of Switzerland. A detergent comprising an alcohol of the group consisting of butyl alcohol, amyl alcohol, terpineol and cyclohexanol, material of the group consisting of sulfonic acids and their alkali metal salts, and tri-sodium phosphate the ingredients being combined to a proportion of the order of 15 parts, 35 parts and 50 parts.

♦

James L. Hutchison, formerly with the J. Walter Thompson Company and, more recently, with Blackett-Sample-Hummert, has been appointed advertising manager in charge of both the advertising and sales promotion departments, by United Drug Company, Boston. He succeeds John E. Fontaine, who recently was made vice-president and general sales manager.

♦

Wilson & Bennett Mfg. Co., Chicago, has announced the appointment of C. Bennett, Bennett Brokerage Co., 223 Fourth Ave., N., Birmingham, Ala., as sales representatives in the Birmingham district.

♦

The House Furnishings Show held by the N. Y. Housefurnishings Manufacturers Association is to be held at the Hotel Pennsylvania, New York, July 10th to 19th.

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OLIVE OIL (all grades) and OLIVE OIL FOOTS

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Neatsfoot Oil
Coconut Oil
Cottonseed Oil
Palm Kernel Oil
Stearic Acid
Oleo Stearine
Soya Bean Oil
Palm Kernel Oil (English or German Denatured)

Fatty Acids, Animal & Vegetable

Rapeseed Oil
Teaseed Oil
Castor Oil
Sesame Oil
Lard Oil
Palm Oil
Corn Oil
Peanut Oil
Grease (Animal)
Tallow
Red Oil
Soap Colors
Chlorophyll
Soda Ash
Sal Soda
Talc

Boiled-down Cottonseed Soap

Trisodium Phosphate
Caustic Potash
Carbonate Potash
Bath Powder
Modified Soda
Caustic Soda
Silicate of Soda
Meta Silicate and Metso

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PRODUCTION SECTION

A section of SOAP devoted to the technology of oils, fats, and soaps published prior to Jan. 1, 1932, as a separate magazine under the title, *Oil & Fat Industries.*

POWDERED SOAPS

A Discussion of Materials, Manufacture and Grinding of Pure Powdered Soaps and Soap Powder Cleansers

By HAROLD SILMAN
London

POWDERED soap is steadily increasing in importance. These "dry" soaps are used extensively in all kinds of general cleansing powders and preparations, and the finer grades find application in a large variety of toilet articles. Soap has its chief value in all these preparations as an emulsifying and foaming agent, and as a convenient medium for carrying other substances. It is important that the best quality stock should be used in making the dry soap base in order to avoid discoloration and rancidity. Both of these defects are common where suitable precautions are not taken, because of the large surface which becomes exposed to the air in a powder.

Bleached palm or palm-kernel oil are chiefly used. Some makers employ tallow which gives a good appearance to the powder. It has been found, however, that animal fats give deficient solubility and a stiff gelling effect to the powdered soap unless used cautiously. A mixture of 40 parts bleached palm oil, 40 parts tallow, and 10 parts coconut oil would be suitable. This type of soap powder would be very white. By the use of 3 parts of palm oil to one part of palm-kernel oil, an attractive cream-colored powder is produced, which is more popular for some purposes.

Cotton seed oil is sometimes added, but this produces a tendency to darkening and rancidity, as does also palm oil, but to a much lesser extent. Coconut oil increases the abundance of lather, but has a harsh effect on the skin. For the highest grade of powdered soap, olive oil should be used exclusively, since the resulting castile soap powder possesses the best all-round properties. It is not very liable to rancidity, is white, and remains white, and has a particularly emollient action on the skin. It is also readily soluble in water, and rinses freely, though the lather is slow in forming.

The saponification of the fats is accomplished by the boiled process as for most hard soaps. Saponification must be initiated by means of a small quantity of a weak soda lye, and then introducing a stronger lye later, and boiling the mass. If there is any tendency to frothing, the pan should be left for a few hours after beating in the froth, and no further trouble should be experienced on re-boiling. When the soap is finished, in about 5 hours, a sample should be smooth and translucent, and flake readily. The usual tests for excess fat or alkali should be applied.

Graining is best carried out with strong brine rather than with solid salt, as this prevents accumulation of solid salt at the bottom of the pan. Of course due allowance must be made for the extra water, when adding the initial water for saponification. When salting out olive oil soap, or palm oil soap, it is necessary to have a much more concentrated brine than for tallow soaps, because of the greater solubility of the former. Furthermore, with a strong brine, a whiter and better soap is produced, as the nigre is more effectively separated. Deterioration in a soap is due partly to the presence of small quantities of higher unsaturated acids. It is found that the proportion of these acids in the nigre increases when a concentrated brine is used.

Of course, soap grained from a strong brine solution contains more sodium chloride than that from a more dilute solution, and this has, indeed, a favorable action on the soap. First, the salt acts as a preservative, and

soap powders containing between 1 to 1.5 per cent of sodium chloride remain white up to 12 months from the date of manufacture, while similar soaps containing less than .5 per cent of sodium chloride show a very considerable yellowness after about 3 months. The chloride appears to inhibit the oxidation of the unsaturated glycerides, to which action the browning of soap powders is attributed. Moist soaps also hydrolyze more rapidly than dry ones, and here again the salt, by repressing the dissociation, keeps the soap in good color and condition—when stored, within limits, under favorable conditions.

There is good reason to believe that all soaps must contain a small amount of free alkali, otherwise they would not be stable. Clearly an excess of caustic soda would achieve the same purpose as the salt to a greater degree, but obviously its presence is undesirable.

In preparing soap for powdering purposes, it is essential that it should be as dry as possible. The drying should be done carefully, making sure that no part of the soap is heated directly to a temperature over 125° F., since overheating during manufacture renders the soap more prone to develop defects. It must not be forgotten that overheating can result from the too rapid friction of the soap with the mill, as well as from the heating which it receives during drying. Where the soap is to be used as a medium for carrying liquid materials, dryness is of paramount importance, because the soap will then be able to adsorb them onto its surface more readily.

The edge-runner mill much used formerly gave a fine powder, but as its action consists essentially in crushing, the soap formed was rather dull and heavy. The lighter, and more readily soluble powder now in demand, is made by means of a disintegrating machine, or better, by the more modern centrifugal grinding mill. The powder is agitated with a large volume of air in these machines and particles which have not been reached to the determined degree of fineness are returned to the centrifuge for further treatment. The incorporation of air into the particles has the further advantage that it lessens the tendency of the powder to lump together on storage. It may be taken as a general rule that the lower the specific gravity, the less lumping will occur. The one defect of these machines is that the high speeds at which they work may cause overheating of the soap, unless it is handled carefully. It should also not contain any kind of filler, such as rosin, which is not amenable to treatment in a grinding mill. By means of these machines, it is also possible to grind the melted soap directly to powder-form, simply by feeding the thoroughly crutched mixture into the machine at 110° to 120° F.

By modern machinery the size of particles can be reduced to very small dimensions, and grades are available of which 90 per cent will pass through a 200 mesh sieve and 98 per cent through a 150 mesh. The average soap is not as fine as this, and generally 80 per cent will pass through a 200 mesh, 95 per cent through a 150 mesh, and 97 per cent through a 100 mesh.

The Federal Specification Board of the United States Bureau of Standards has recently suggested tentatively as a standard for particle size, the following:

Retained on	*Minimum Per Cent*	*Maximum Per Cent*
No. 12 sieve	..	5
No. 45 sieve	50	5
No. 100 sieve	90	5

Also the portion insoluble in alcohol should not exceed 2 per cent while the free alkali should not be greater than 0.1 per cent. Generally, the soap should consist of thoroughly saponified soda and fats, uncolored, free flowing and non-caking. It must lather freely, be packed in air-tight casks, and not contain more than 6 per cent of volatile matter.

FOR use as a general cleanser, powdered soap is milled with a variety of ingredients both to improve its detergent and its keeping properties.* The commonest ingredient is sodium carbonate in crystal form, with a small proportion of soda ash. The crystals and the ash are mixed together and allowed to stand for some time before use. If any considerable amount of soda is to be used in the soap, the ash is essential to facilitate grinding. The soda ash converts excess water into the hydrated crystals, thus preventing the soap becoming pasty on working, so that it may be ground properly. The soda and soap chips are ground together. Should any tendency to pastiness be exhibited, resulting in the choking of the machine, a small proportion of soda ash will soon correct this. By this method it is possible to obtain a soap powder of a fair degree of fineness.

The tendency of manufacturers today is to produce powders containing more real soap and less soda. Glauber's salt, a very common adulterant of no value whatever in soap powders, is now found much more rarely, except in the lowest grades.

The floor-process for soap powder consists in running the soap dissolved in warm water, to which sodium carbonate and caustic soda have been added, onto a concrete floor. It forms a comparatively thin layer which hardens fairly quickly and can be broken and ground in a disintegrator. A good product can be made in this way from:

Soap	5 parts
Sodium Silicate	2 parts
Sodium Carbonate	22 parts
Caustic Soda (30° Bé.)	6 parts
Water	60 parts

The soap is dissolved in the hot water, and about half the carbonate added, crutching well. Cease crutching, add the caustic soda, and then finish the addition of the carbonate slowly under constant agitation, followed by the silicate. After mixing for a further hour, the

* These soap and sodium carbonate mixtures, containing from 10 to 25 per cent of pure soap are termed "soap powders" and are not to be confused with pure powdered soaps running 98 to 99 per cent anhydrous soap which are discussed also by the author.—Editor.

product is dried, as described, on the floor of a warm, dry room, in which the air temperature is between 70° F. and 80° F. Crystallization is sometimes facilitated by stirring now and again and throwing in a few crystals of sodium carbonate. Fine powders can be obtained by this rather crude method.

For the powders with a high percentage of soap, the spray process is particularly suitable. In this the mixture of melted soap and soda is blown by means of compressed air into a chamber where it forms a spray, which rapidly dries and collects on the walls and floor. The melted soap is actually allowed to fall from a chute for about 12-15 inches where it is met by a powerful blast of heated air directed at an upwards angle, emerging from a slit about 4 inches long by 1/32 - 1/16 inches broad. The air pressure disintegrates and disperses the melted soap, and by adjusting the rate of flow of the soap and the air-pressure, a uniform powder of almost any degree of fineness may be produced. This method is rapid and satisfactory, but the installation is only worth while for manufacturers with large out-put. The quantity of sodium carbonate can be varied in this method, so long as the finished product has between 20 and 40 per cent of fats, otherwise the process does not work satisfactorily. Of course a large variety of other substances are added to soap powders in various proprietory articles to make them suitable for different purposes. For the washing of greasy dishes, etc., the sulphonated oil soaps are sometimes used in small quantities, or sodium metasilicate may be added to the soap in the crutcher in the liquid form, or ground in afterwards.

The use of perborates in soap powders to increase their bleaching and detergent properties depends on the fact that "nascent" oxygen is released when the soap is dissolved. When perborates are incorporated in soap it is necessary that only saturated oils should be employed in the soap base, which should also be very soluble and free-lathering. Palm oil and coconut oil are among the best used. The presence of fluid oil soaps or resin fillers is incompatible with perborates, which oxidize them and cause the soaps to darken and develop and unpleasant odor.

One of the best selling oxygen soap powders on the English market shows the following composition:

	Per Cent
Pure soap	24.0
Sodium silicate	8.3
Sodium carbonate	27.2
Water	30.1
Sodium perborate	10.4

In one soap powder for which very high detergent powers are claimed, about 2 per cent of trisodium phosphate has been used.

Scouring soap powders make use of fine silica or pumice, which is added mixed with soda ash solution, after thorough saponification has been effected. The amount of silica is very variable, depending on the purpose for which the powder is made. Paraffin wax is sometimes used to about ½ per cent of the soap powder, because it appears to improve the detergent properties besides lending enhanced polishing powers to the preparation. Ultramarine is sometimes added to increase the whiteness of the soap. Some makers add it in excess, thereby producing a definitely blue powder.

Powdered soaps, especially those containing a considerable proportion of unsaturated acids, become brownish in parts on ageing and develop an unpleasant odor. This has been ascribed to the effects of the oxidation of the oleic chain on exposure of the large surface to the atmosphere, together with its tendency to change into its more stable isomer, the sodium elaidate. Both of these reactions are exothermic, and if the mass is closely packed, the surplus heat cannot escape and charring results. Thus the brownness is due actually to a mild degree of charring of the soap and in some extreme cases actual burning of the soap has occurred. The presence of water accelerates these changes, so that more heat is liberated. Therefore the drier soap powders are less liable to lose their color than those containing 5-10 per cent of water. Therefore a high degree of dryness is to be sought in the finished soap to avoid these troubles.

ENGLISH practice in the manufacture and milling of powdered soaps and general soap powder cleansers is outlined here by Mr. Silman. A discussion of American methods for the manufacture of pure powdered soaps by Herbert Kranich, president of the Kranich Soap Company, Brooklyn, will be published in the next issue of "Soap".
—The Editors.

A formula from India for making cold-process toilet soap, is given as follows:

	kilograms
Triple pressed stearine m.p. 53° C.	25
Refined Cochin coconut oil	50
Ceresin wax	2.5
Japan wax	2.5
Bleached lard	20
Caustic soda 36° Bé.	49.5

The fats, oils, waxes, etc., are melted together and treated with finely powdered nutmeg, gum benzoin and dried Amlaki to the extent of 15 per cent of the fat stock. Keep the mass at 65° C. for five hours, stirring occasionally. Strain through cloth. Heat up the lye and pour the warm oil mixture slowly into it with stirring. Reduce the temperature to 40° C. Cover the pan and keep it hot for four to five hours to allow saponification to occur. If alkaline at the end of five hours, neutralize with boric acid. Cerep and potato starch, zinc oxide or arrowroot may be added. Such a soap can be worked readily and does not become rancid. A. N. Ghose. *Indian Soap J.* **1,** 231 (1935).

In addition to Perfect Clarity and Constant Uniformity-

STANDARD SILICATE

Is Graded To Suit YOUR Soap Formula

If all soaps and soap powders were identical, we could eliminate a lot of preliminary technical cooperation with soapmakers. Also, we could do away with much of the close laboratory control that we now employ to produce various grades of Standard Silicates, exactly fitted to varying soap-making needs. But the soap market has individuality,—and *whatever* your silicate requirements may be, a specification for "Standard" is an assurance of a reliable builder . . . dependable in supply, and consistently correct in the details that your particular formula demands.

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PLANTS AT: LOCKPORT, N. Y. MARSEILLES, ILL. JERSEY CITY, N. J. CINCINNATI, O.

TROLHETTA OIL IN LIQUID SOAP

Liquid soaps with increased detergent action can be prepared by the addition of trolhetta oil to the soap. A suitable addition of this material will not interfere with foaming power or transparency. Trolhetta oil is light yellow in appearance and somewhat resembles alcohol in odor. It can be mixed into the liquid soap a few hours befort filtration. On stirring in the trolhetta oil, the soap immediately becomes milky and turbid in appearance. However, the liquid clears up completely in a few hours. The amount added should be about 4 per cent of the liquid soap. If much more than this is used, the excess oil will separate, since its solubility in soap is somewhat limited.

Trolhetta oil is a mild superfatting agent and is especially good in shampoo liquids. It gives the hair gloss without making it feel oily. It protects the skin and hair against excessive defatting by alkali, and makes the action of soap on sensitive skin milder, particularly when the coconut oil content of the soap is high. A suitable stock for liquid soap to which trolhetta oil is to be added consists of the following: 40 parts of coconut oil, 10 parts of castor oil, 50 parts of soya bean oil. If turkey red oil is used in place of soya bean oil, the solubility of trolhetta oil is considerably increased.

A 35 to 40 per cent thick-flowing soap containing 7 to 10 per cent of trolhetta oil makes a particularly efficient detergent. Robert Krings. *Seifensieder-Ztg.* **62,** 278-9 (1935).

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The Wizoeff or fatty acid method for the determination of total fatty matter in sulfonated oils, and the Herbig (Bureau of Standards) or acid-decomposition method, were both found to yield low results. The Herbig method is subject to variations, depending on the method of decomposition. Stronger acid and continued boiling yield the lower results, probably due to increased hydrolysis and polymerization. A new method called the total active ingredients method, is considered to give the most accurate values. It consists essentially in separating and weighing the pure, undecomposed sulfonated oil. As a rule the results are higher than by the other methods. The weight of the fatty matter by this method corresponds to the true fatty matter in the original sample. The new method is also applicable to true sulfonated fatty and mineral oils, in which cases the other methods are useless as these oils are not decomposed by acids. Ralph Hart. *Ind. Eng. Chem., Anal. Ed.* **7,** 137-40 (1935).

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With compound hydraulic presses, contrary to a fairly common belief, the pressure is not the predominant factor in the variation of the oil content of the press cake. The most important factor from this viewpoint is the preliminary treatment of the pulp as to temperature, moisture content, etc. In order to extract the maximum of oil, it is essential to liberate the oily droplets by breaking open the cells containing them. I. Kolpakov and M. Pasmanik. *Chimie & Ind.* **31,** 639.

REFINING POLYMERIZED OILS

Sardine and herring oils were refined with 0, 50, 100 and 120 per cent of alkali, where 100 per cent is the amount used to neutralize the total free fatty acid in the oil. Part of the oils were then polymerized and another fraction was treated with acid clay before polymerization. The acid value decreases as polymerization proceeds. The extent of this decrease is larger when the original acid value is large. The effect of acid-clay refining is negligible. The effect of refining on the specific gravity in polymerization is very small.

The specific viscosity is increased by polymerization and it is very high when there are both free fatty acid and alkali soap present. The color is reduced by both alkali- and acid-clay refining. With polymerization, the color of the imperfectly refined oil increases, while that of the fully refined oil decreases. The refractive index was increased by alkali refining but not by acid-clay refining. Polymerization increased it considerably. The imperfectly refined polymerized oil showed a greater index than the fully refined oil. Masao Murata and Katuzi Masumori. *J. Soc. Chem. Ind., Japan* **38,** Suppl. binding 51-2 (1935).

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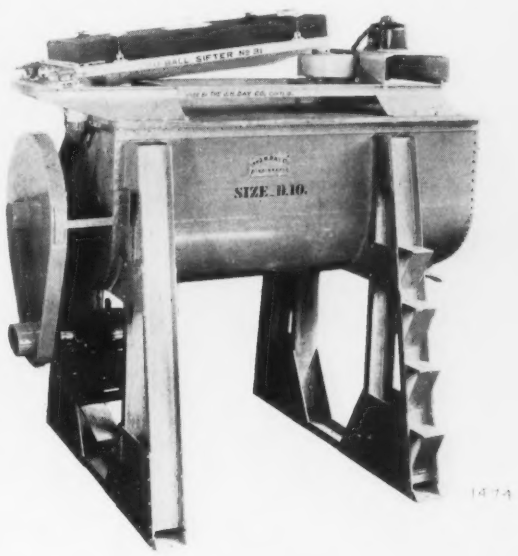

A new combination continuous sifter and dry mixer by J. H. Day Company of Cincinnati. Their new "Ro-Ball" gyrating screen (small unit) hooked up for continuous production with a Hunter Mixer. Being used in production of insecticide powders, soap powders, washing compounds, and other powdered products.

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The hydrogenation of oils and also sulfonation, produces solid isoöleic acid. Therefore the isoöleic acid test cannot be applied to sulfonated oils. The amount of isoöleic acid is a maximum with 20 per cent sulfuric acid. It is small at low sulfonation temperatures but increases with an increase in temperature. C. Riess. *Collegium* 1934, 566-8.

GERANIOL for SOAP

In various grades to meet every requirement as to price

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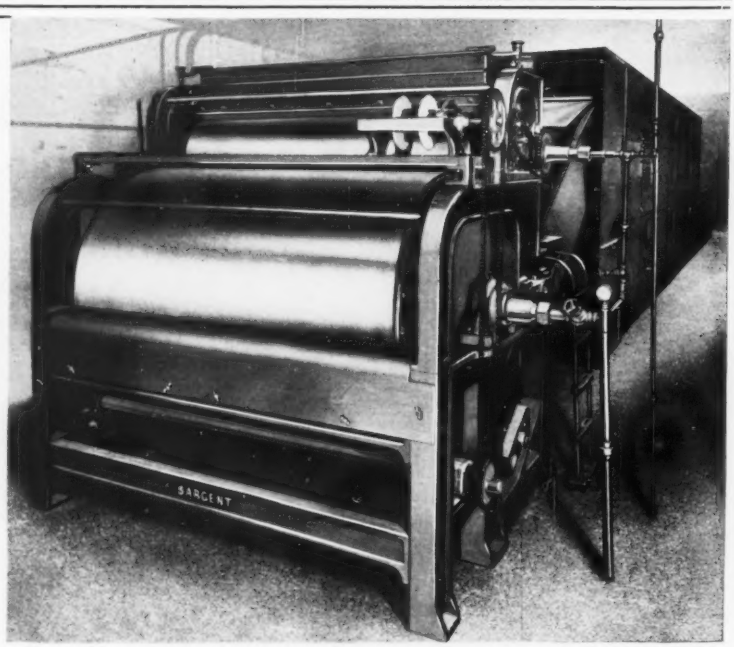
a Soap Chilling Roll and Drying Machine



AS the title indicates, the Rolls are NEW and the entire machine is NEW, many valuable improvements having been perfected until this latest Sargent development is now one of the very finest Rolls obtainable.

To the soap manufacturer, the most important angle is to have a *thin, uniform chip* . . . readily accomplished by these new Rolls being expertly machined, ground and set. Finest grade of cast iron. Vari-speed controls on both Rolls insures easy adjustment . . . every part accessible. Drive improvements reduce the horsepower used. Changes made at a minute's notice. The Dryer is entirely re-designed. Its housing gives better insulation and cuts down steam consumption per hour. Other valuable changes have been made in the circulating and exhaust air systems . . . and all *fans* are *direct motor driven.*

C. G. SARGENT'S SONS CORP. GRANITEVILLE MASS., U. S. A.

ON PRODUCTS AND PROCESSES

In a process for the manufacture of soap, air-dried peat is extracted with benzene or other organic solvent. From the bituminous material thus obtained, the resin is extracted with alcohol and saponified in the usual manner. E. V. Roginskaya. Russian Patent No. 34,675.

—— ♦ ——

Ordinary soaps are improved by the addition of alkaline salts of carboxylic acids obtained by the oxidation of complex carbohydrates or their degradation products, such as starch, dextrin or hydrocellulose. The carbohydrate may be added during the manufacture of the soap and oxidized *in situ* with air or oxygen. Oskar Janser. Austrian Patent No. 140,042.

—— ♦ ——

A disinfectant soap containing finely dispersed silver compounds is prepared by mixing the soap with an aqueous solution of a complex ammoniacal compound of silver, for example, a solution of silver chloride in aqueous ammonia. The mixture is heated to decompose the complex compounds. Lisa Lotzin. German Patent No. 609,336.

—— ♦ ——

Instead of a minimum free alkali in soap, a requirement for a minimum hydroxyl ion concentration is suggested, but is considered impractical until simple inexpensive apparatus is available for pH determinations. I. Davidsohn. *Rayon and Melliand Textile Monthly* **16,** 23-4, 83-4 (1935).

—— ♦ ——

A washing preparation is obtained by extracting white agaric with hot solutions of alkali and evaporating the extract to dryness. V. I. Fokin. Russian Patent No. 34,674.

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For a rapid determination of clay in soap, dissolve 1 to 2 grams of soap in 40 cc. of strong alcohol on a water bath, let settle and decant through a tared filter on a hot-water funnel. Wash twice by decantation with hot 50 per cent alcohol, transfer the residue to the filter, wash with strong alcohol, remove from hot-water funnel and wash with 1:1 alcohol-ether mixture. Dry to constant weight. L. Turbin. *Chimie & Ind.* **31,** 641.

—— ♦ ——

Wetting, cleansing and emulsifying agents are made by sulfonating liquid or solid waxes in the presence of polyhydric alcohols by the usual sulfonating agents or by sulfonating these waxes with sulfonating agents containing acid sulfates of polyhydric alcohols. An example is the sulfonation with sulfuric acid of a mixture of spermaceti oil and glycerol. Chem. Fabrik vorm. Sandoz. French Patent No. 770,884.

Two commercial household soaps were allowed to contract by slow cooling and by rapid cooling from 75 to 25° C. The differences in the amounts of contraction were not significant. The hardness was determined by the titer of the fatty acids in the mixed fat charge. Sodium chloride, carbonate or sulfate was added in varying concentrations to a 63 per cent household soap. With increasing concentrations of all three salts, the hardness of the soap falls first to a minimum and then increases. The ratio concentration of added anhydrous salt at minimum hardness to molecular weight is roughly the same for all the salts, including sodium thiosulfate, trisodium phosphate, borax, sodium chloride, carbonate and sulfate. J. L. Bowen and R. Thomas. *Trans. Faraday Soc.* **31,** 164-82 (1935).

—— ♦ ——

Wetting agents are produced from halogenated aliphatic alcohols containing at least four carbon atoms by substitution on the one hand by fatty acids, aliphatic alcohols or derivatives of lipoid substances, and on the other hand by groups increasing the solubility in water. An example is the caproic ester of 6-hydroxyhexane-1-sulfonate of sodium. Deutsche Hydrierwerde A.-G. French Patent No. 774,588.

—— ♦ ——

Mono- and di-glycerides are prepared by the reaction of a triglyceride with glycerine at 140-205°C. In the presence of an alcoholate of an alkali metal, for example, sodium glyceroxide, potassium alcoholates and alcoholates prepared from ethyl alcohol. In examples, sodium is dissolved in glycerine and the solution treated with hydrogenated cottonseed oil. The products may be used as emulsifying agents for mixtures of fatty or mineral oils with water, as in the production of cosmetics. Procter & Gamble Co. British Patent No. 421,063.

—— ♦ ——

A detergent especially suited for removing rust, ink and fruit stains from linen, is prepared by mixing equal weights of citric acid, table salt and potassium binoxalate, with or without soap. Rudolf Morawetz. British Patent No. 420,426.

—— ♦ ——

A method of bleaching palm oil is to add various dyestuffs to emulsions of the oil and expose to intense light which the dyestuffs are capable of absorbing. Emil Baur and G. F. Fabbricotti. *Helv. Chim. Acta* **18,** 7-17 (1935).

—— ♦ ——

Refined oil is deodorized by heating under vacuum to 100-150° C. in the form of fine streams over a series of superimposed inclined planes. N. V. Machinerieen- en Apparaten Fabrieken. French Patent No. 770,269.

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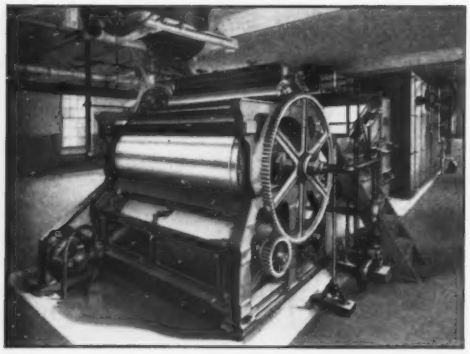

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TRADE REVIEW

Editor's Correspondence

To the Editor of SOAP:

It is rather surprising that Margaret J. Hausman's splendid discussion of olive oil foots, in the April number of SOAP has aroused no comment on the subject in the following issue. It appears to me that the matter is of sufficient importance to warrant an interest by our industry. I heartily agree with Miss Hausman, in that the methods of tests as revised Jan. 3, 1924, by the N. Y. Produce Exchange, are inadequate.

Miss Hausman points out that practically anything passes as far as color is concerned. On this subject, the writer was informed by the Bureau of Chemistry of the Produce Exchange some two years ago, that a test for artificial color is never made unless specifically requested by a client. Some added dyes, have caused considerable difficulty to the textile trade.

To obviate this, we specifically demand the absence of artificial color, on all our contracts for this commodity. Moreover, we make a test on every shipment of foots, by noting any coloration imparted to the first petroleum ether extract in the determination of unsaponifiable matter. If this extract is bluish or green, we consider the sample artificially dyed. When the extract is a deep yellow it looks suspicious. However, since new dyes constantly appear on the market, the method for determining artificial color, can bear further study.

The textile trade demands olive soap of good green color. Much of course depends on the soap maker's skill in washing out impurities, but when the oil is in such a stage of decomposition that the chlorophyll has turned brown, the soapmaker can hardly be held accountable for color. Therefore, we should develop a new means of grading color, more definite than that "the oil must not turn brown when saponified with 20° Be. Caustic Soda." Since color is due to chlorophyll dissolved in the oil, perhaps a set of standards can be prepared, using chlorophyll or even green dye dissolved in a suitable solvent for comparison with a solution of the oil in the same solvent.

Moreover, a better color test than we have at present is absolutely imperative, for in a recent conversation with an importer, we were informed that the foots coming in will be consistently worse, as the better oils are refined for higher grade purposes abroad.

We have found that the Xylol method for moisture over 5 per cent, is more accurate than that determined in the oven at 105° C.

Every oil chemist knows that there is a considerable discrepancy between the ethyl ether and the petroleum ether method for determining insoluble impurities, and that the latter method more nearly represents the actual loss to the soap maker.

Miss Hausman justly points out that olive foots is a by-product and only a step away from other oil foots. It is therefore reasonable to expect that it should contain variable amounts of impurities in the form of dirt, oxidized fatty acids, cellulosic matter, metallic soaps, moisture, etc., resulting from manufacture and storage. Obviously, soapmakers should not be expected to pay for impurities which are entirely lost in the saponification. Consequently, the writer considers Miss Hausman's suggestion a fair method of evaluation for all parties concerned.

In conclusion, I believe that if a better method of grading can be agreed upon, then, oils of superior quality can command better prices, which soapers should be willing to pay, knowing that they are getting their money's worth. The writer will aid in every way possible to bring this matter to a satisfactory conclusion, and invites comments and suggestions on the subject, not only from soap makers, but also from the producers of olive oil foots.

Very truly yours,

BENJAMIN LEVITT, *Chief Chemist*,
Chas. W. Young & Co., Philadelphia.

FATTY ACIDS IN FILLED SOAPS

To determine fatty acids in soaps containing fillers, treat 5-6 grams of soap on the water bath with 100 cc. of 60 per cent alcohol in an Erlenmeyer flask provided with a reflux condenser, until the soap has dissolved. Decant the clear solution through a heated filter, repeat the treatment until the soap is completely extracted from the residue, transfer the combined solutions to a separatory funnel and dilute to about a 20 per cent concentration of alcohol. Decompose the soap with dilute hydrochloric acid, extract the fatty acids with ether and wash with water. Add an equal volume of alcohol and titrate with 0.2 *N* potassium hydroxide solution. The neutralization number of the free fatty acids must be determined on a separate portion. I. Ginzburg, *Chimie & ind.* **32,** 403.

The term "olein" is applied to many different products which vary considerably in their suitability for soap-making. Not only is there a great variation in the amount of unsaponifiable matter, but there are also differences in odor, titre, oxidizability, and lathering power of the soap formed, so that it is necessary to use discrimination in selecting an olein to be used in soap. A first-class tallow olein will have a titre of 10-15°C., an iodine value of 85-90, and contain not more than 1 per cent of unsaponifiable matter. Cottonseed olein may have a titre as high as 33-34°C., and an iodine value of over 110. An olein of fish origin may have an iodine value of 150 or more. A sample of tallow olein recently examined gave an iodine value of 73 and a titre of 19°C. It had evidently been improperly separated from the stearin, possibly due to expression at too high a temperature. *Perfumery and Essential Oil Rec.* **26,** 155-6 (1935).

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(*From Page 24*)

the laboratory. When the analysis is finished or the reaction has gone to completion and the end products are identified, he has the information that he and his client sought. In this developmental work under discussion, practical tests by people outside the laboratory must be depended upon to evaluate the formula resulting from any research work. The chemist, whether he be employee or consultant should have good training and take a theoretical and academic view of his work, yet be "tainted" sufficiently with commercialism to have a practical slant at his problems.

With these qualities he is able to theorize so as to get at the bottom of things and at the same time choose that method of procedure offering most promise of financial reward for his client or employer. Summing up, he should be an optimist so that in every undertaking and problem, he sees the probable ways to success quicker than he recognizes the possible grounds for failure.

Check-Up of Competitive Products

BEFORE starting the actual developmental work, it is well to purchase all commercial products of similar nature or those prepared for the same purpose. Practical tests under the conditions of use will separate the "sheep from the goats." Singularly enough the most meritorious product may not be among the best known or largest sellers. Frequently, the best product may be little known and enjoy at best a limited, sectional demand. This has recently proven true in the case of an auto polish, upholstery cleaner and nail polish powder. The best products may then be analyzed to ascertain the composition and identify the ingredients that others have found most suitable. It is in the little known product that the unique and unusual but efficacious ingredient is most likely to be found. The big fellow is frequently reluctant to step off the beaten path and to pioneer.

Occasionally the question arises after development of a new product, "Shall it be patented?" Almost invariably the best and safest answer is, "No!" A recent trade journal headline inadvertently, but aptly put it, "Latherless Shaving Cream Composition Revealed by Patent." The formula was published in the body of the news item and any interested competitor was free to modify the formula to evade the patent. Or the competitor could use it bodily and take the chance of being caught, and if caught, have another chance to prove the patent invalid anyway.

If the formula is held a secret, a march can be stolen on competition and the product can slip onto the market and be well on the way toward wide distribution before competition is aware of what is going on. And the first in the field always has the edge on competition and can become firmly entrenched before the onslaught of competitive items begins.

Stability of Formula

THAT a formula must be stable is obvious, yet even among nationally advertised products, those may be found lacking this attribute. Shaving creams and brushless shaving creams have been observed either too thick or too thin. They have been observed to lack smoothness. On examination little lumps have been found to be stearic acid, indicating that either the initial mixing temperature is too low or else the agitation is not vigorous enough or continued long enough. A deodorant that is essentially aluminum chloride, clouds and a precipitate forms in the bottom of the bottle. This is due to the alkalinity of the glass forming aluminum hydroxide or aluminum oxychloride or both. As little as 3/100ths of 1% of free hydrochloric acid would prevent it.

Tooth paste hardens in the tube,—perhaps due to double decomposition of the soap and the chalk. Bay rum is cloudy, having been made in an iron tank. The fancy bar of toilet soap fades or discolors,—but why continue and possibly tread on someone's toes or cause someone's face to turn as red as last year's nail polish?

There is no substitute for the age test, although the test on some product can be accelerated with proper equipment. Some gauge of the effect of age can be obtained by maintaining some of this product in the containers in which it is to be marketed, for a period of weeks in a refrigerator and in a warming chamber maintained at 110-120° F. Samples of the product may be incubated at body temperature (98-99° F.) in an electric oven for a period of days or for as long as the available time permits to observe any fermentation, separation, molding or rancidity that may take place.

Any product susceptible to freezing may be chilled in an ice and salt bath to the point where there is visible evidence of freezing. If on gradually warming to room temperature there is any untoward effect on the product, precautions in shipment necessary in cold weather or to cold climates, can be gauged.

(*To Be Continued*)

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Wetting, penetrating and cleaning agents are obtained by causing fatty acid chlorides containing at least 5 carbon atoms to react with polyhydroxyamines such as glucamine, fructosamine, etc. An example is the preparation of laurylpentolhexylamide. Soc. pour l'ind. chim. a Bale. French Patent No. 771.614.

—— ♦ ——

Stable aqueous solutions of vegetable lecithin are prepared by treating fresly extracted aqueous lecithin such as soybean sludge with a small amount of an alkaline substance such as caustic soda or soda ash or similar alkalies. Hermann Bollmann. German Patent No. 581.763.

—— ♦ ——

Oils and fats are purified in contact with filaments of activated carbon, preferably entangled in all directions. *Soc. anon. "Le Carbone."* French Patent No. 774.644.

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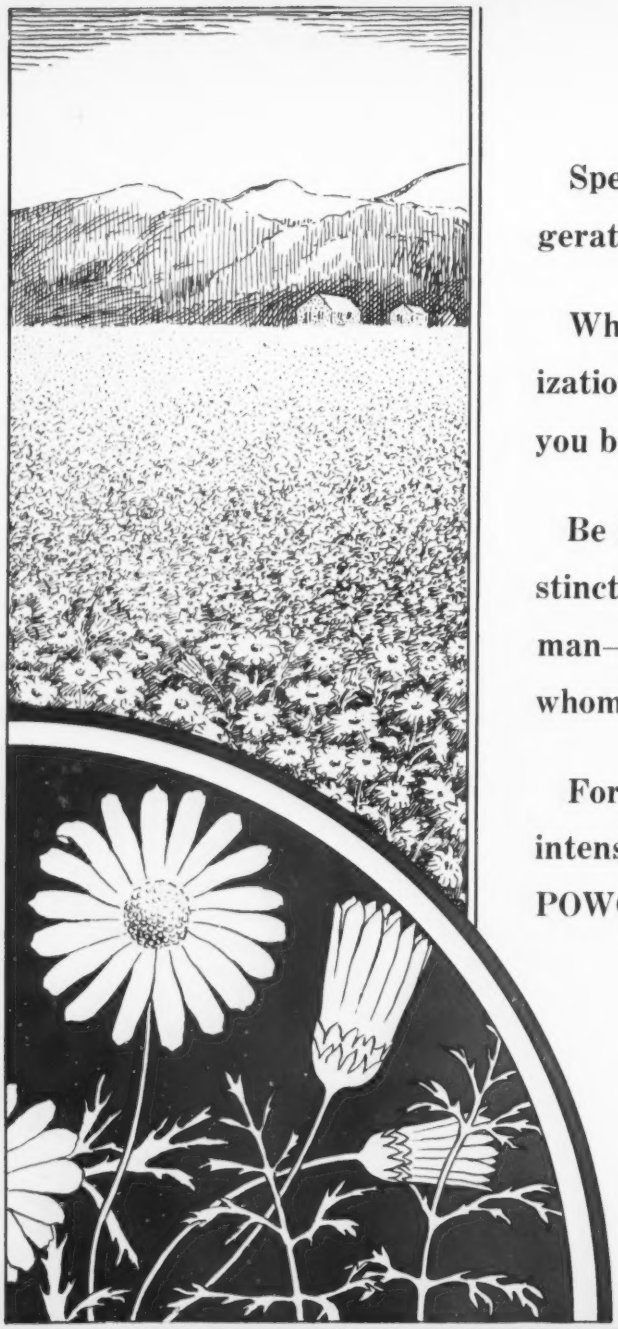

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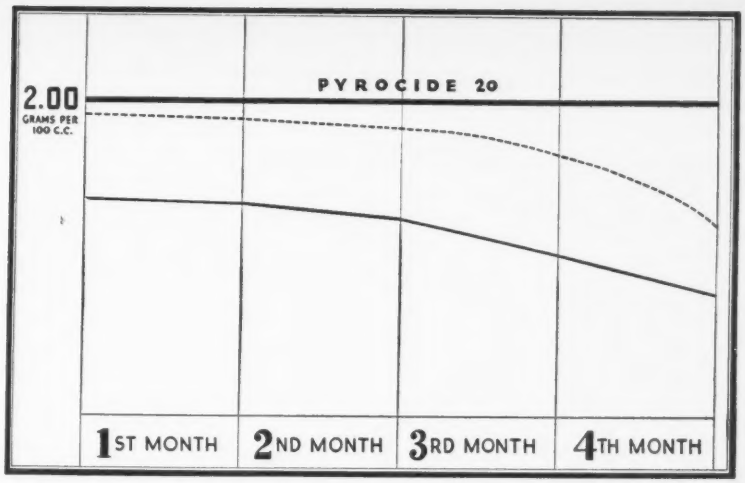

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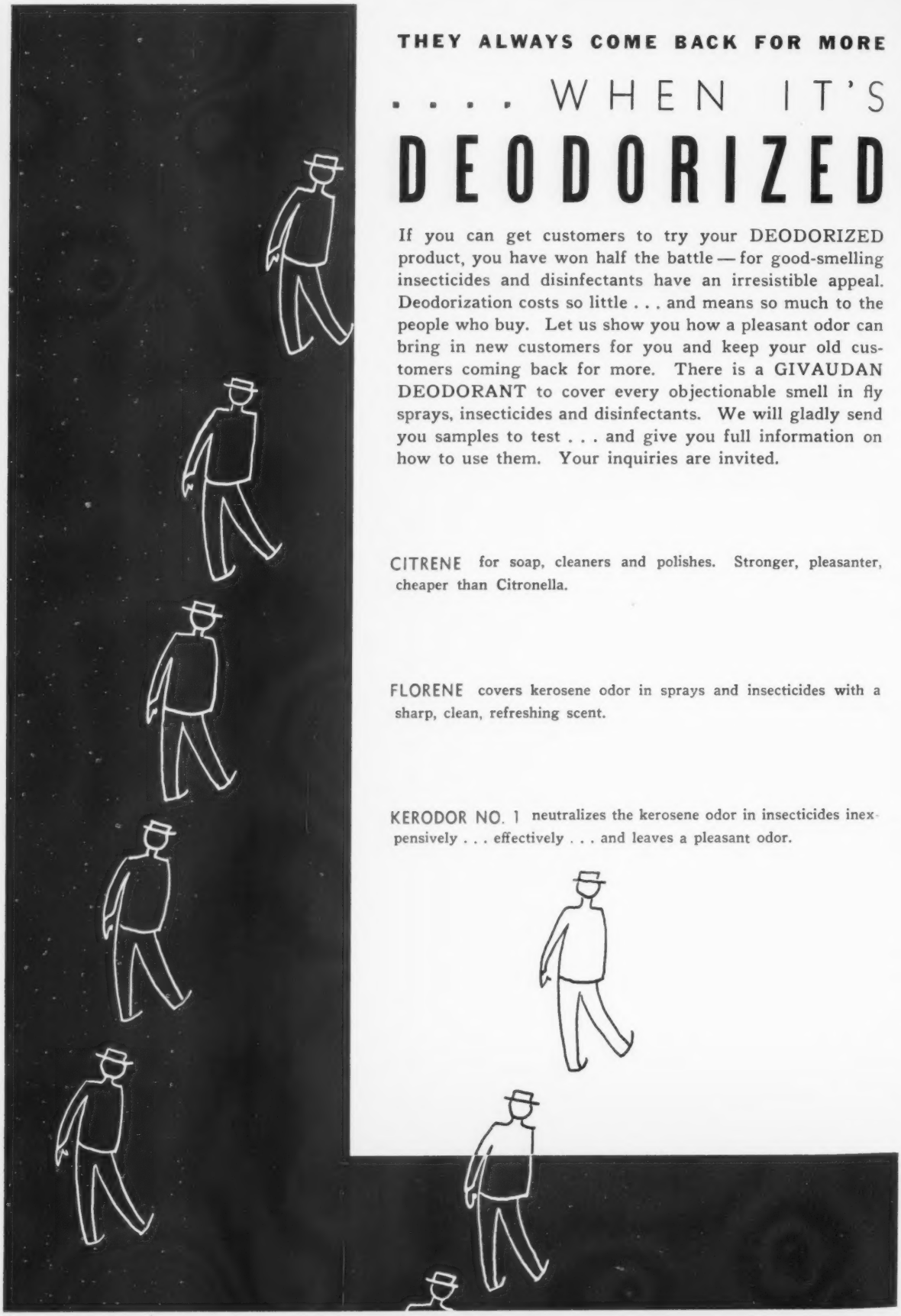

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UNIFORM KILLING POWER

—that's what you get in these finer ground Pyrethrum and Derris Powders

PYRETHRUM POWDER: Finest available, with a known high pyrethrin content. Milled with modern equipment which makes heat accumulation impossible. Ground extremely fine—contains more killing particles—remains suspended in the air longer. More effective and economical because it comes into more intimate contact with vital parts of insect's body.

DERRIS POWDER: Finest powder in the world. Standardized at 4% rotenone. Suitable for use in aqueous sprays. Will not clog spray nozzles.

Many valuable insecticide facts are contained in a recent article on "Pyrethrum and Derris Powders — A Study of Their Protection from Injurious Action of Light and Air." We shall be glad to send you a copy upon request. McCormick & Co., Baltimore, Md.

Other McCormick Standardized Pyrethrum and Derris Products

PYRETHROL 20: A uniform, standardized pyrethrum concentrate, the necessary amount of high-test pyrethrum flowers being used in processing each gallon of extract. The quality of the ingredients entering into Pyrethrol 20 is determined at all times by chemical assay. Then double checked by actual spraying on household insects. Only by this constant exacting effort are we able to produce an always uniform concentrate of the desired high killing power.

DERRIS EXTRACT: Containing 5.0 grams of rotenone per 100 c. c. plus the other toxic derivatives of derris root.

DERRIS RESINATE: Containing 25% rotenone and 75% active resins.

ROTENONE CRYSTALS: As solvate, 71% rotenone.

McCormick's PYRETHRUM AND DERRIS PRODUCTS

IS your insecticide just another "fly spray", or do you give your customers a spray that will actually exterminate bed bugs, moths, and other resistant pests as well as flies?

DOES your product have the fast, spectacular action that the customer wants, and which brings repeat orders?

DO you have difficulty in making a uniform product?

DOES your product have a crystal clear, sparkling appearance of purity or does it look as if it might stain?

IS your insecticide caustic, corrosive, or too toxic to be safe to use?

ARE your manufacturing costs too high or uncertain?

Because it was developed for the purpose

LETHANE 384

is the insecticidal agent that answers these and many other vexing questions with perfect satisfaction.

RÖHM & HAAS CO., INC.

222 West Washington Square **Philadelphia, Pa.**

BLOCK COMPETITION ON "BLOCS"

AIR CONDITIONING BLOCS

in all shapes, sizes, fragrances, and weights, packed neatly and securely under your own label.

Let Us Figure With You on All Kinds of

SOAPS
DISINFECTANTS
INSECTICIDES
DEODORANTS
WAXES
SEALS
POLISHES
CLEANSERS

UNDER YOUR OWN PRIVATE LABEL.

Don't Lose Sales . . . . . .

Don't Allow Dollars to Slip Thru Your Fingers

HYSAN SOLVES YOUR PROBLEM

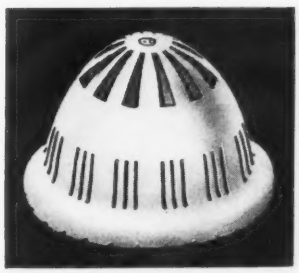
We know your problems. We know what it means when you have to fight price competition. But when you can offer better quality merchandise for less money than your competitor, that problem is immediately solved.

That's exactly what happens when you sell Hysan Blocs. They embody the acme of quality. There's none better at any price. We back up this statement with an unconditional guarantee. It's easy for you to prove that our claims are substantial.

Large scale production together with a new manufacturing process enables us to sell Deodorant Blocs at lowest possible prices without sacrificing one iota of quality.

All Hysan Blocs are made of paradichlorobenzene with special stabilized essential oil that releases its perfume at same rate as the para vapors. Expelled fragrance remains uniform for life of bloc. Clean, firm, hard and thoroughly efficient in effect.

KAPA-SAN



PAT. NO. 1,916,357

The perfect Urinal Strainer and Deodorant that really strains like a wire screen. In White Vitreous China. Theft-proof. Easy to install. Real profit in selling this KAPA-SAN.

THE KAPORATOR

The last word in beautiful deodorant bloc holders. Porcelain enamelled, in white and five pastel colors. Matches wall finishes or trimmings of room. Furnished with your name.

write to-day

HYSAN PRODUCTS CO.

2560 ARMITAGE AVE.
CHICAGO, ILLINOIS

Effective Extermination *plus* SAFETY!

THE standardization of Sodium Fluoride Colored Official Nile Blue has effectively done away with hazard to the public. No one will mistake the blue tinted powder for a food ingredient. . . . Its potency as an exterminating agent maintains it as the dominant insecticide for the commercial and household destruction of insect pests. . . . This General Chemical Company product excels in free-flowing quality and fluffiness.

Your inquiry, addressed to the nearest office, will receive prompt and intelligent attention.

GENERAL CHEMICAL COMPANY

40 Rector Street, New York

Sales Offices: Atlanta, Baltimore, Boston, Buffalo, Charlotte, Chicago, Cleveland, Denver, Kansas City, Los Angeles, Minneapolis, Philadelphia, Pittsburgh, Providence, San Francisco, St. Louis, Seattle. *In Canada:* The Nichols Chemical Company, Limited, Montreal, P.Q.

Manufacturers also of

Tri Sodium Phosphate . Sodium Silicate
and other Heavy Chemicals
of Standard Purity

Colored **OFFICIAL NILE BLUE**

SODIUM FLUORIDE

(You can read this in 55 Seconds—We timed it)

Pyrethrum Flowers and Derris Root

The claims—and counterclaims—the "high-pressure" salesmanship, the multi-colored advertising—with devastating illustrations—probably serve to entertain and yet may likely confuse many manufacturers of insecticides.

Our advertisements have sought to convey only the actual merits of PYREFUME. The Penick laboratories—chemical and entomological—are constantly studying the advances in the chemistry of these important basic insecticides, with the result that our customers continue to specify PYREFUME.

Some concentrated extracts of PYRETHRUM are still sold without a guarantee of pyrethrins content, and many without suitable laboratory control. Experience has shown such products to be unstable and the claims inaccurate.

We assay our PYREFUME by the world-accepted Tattersfield method—modified for convenience by Seil. This is an instance of the scientific precision employed by us in the interest of our customers.

●

We deem it a privilege to have had Dr. F. Tattersfield, of the Rothamsted Experimental Station (Great Britain), as our guest at the Chicago meeting of the National Association of Insecticide and Disinfectant Manufacturers, June 10th, and hope that in this manner we have contributed to a more scientific use of PYRETHRUM, DERRIS and CUBE.

S. B. PENICK & CO. N. Y. MANUFACTURERS OF

P Y R E F U M E

HERE'S A SUCCESS STORY IN A FEW WORDS

Make a product that slays or repels insect pests 100% — make it attractive to use — advertise and merchandise it intelligently — and success is sure to come.

One of the pitfalls in everyone's success program is *odor*.

A pleasing odor *makes a* product attractive to use, but too many manufacturers think "any old thing will do."

They're wrong. Nearly ten years ago we began the study of neutralizing and odorizing your products, with a view of *helping you sell more goods*.

Science Gets Results

In those years our patient, scientific research has built up step by step a knowledge of what to do and what not to do in perfuming fly sprays, moth repellants, deodorizing blocks and many other products you make.

Our research chemists have done prime work in *neutralizing unpleasantness* and in making products *attractive to use*.

How to Use this Knowledge

These same research men will work for you if you tell us your problem.

Write in to us and state your trouble in your own way. Send samples of your materials. If possible tell us all about the product — its effectiveness, how it is sold, what the odor-drawbacks are.

With that information we'll set to work, and in a surprisingly short time, we will develop for you a *real* sales help--a method or material that will make your product smell better.

No obligation; simply tell us your story and ask us to turn it into a *success story*.

van Ameringen-Haebler, Inc.

Aromatic Essentials

315 Fourth Avenue, New York
180 No. Wacker Drive, Chicago
438 West 48th St., Los Angeles
42 Wellington Street, E., Toronto
Factory, Elizabeth, N. J.

Can you supply

Bulk or Private Brand

SOAPS — SOAP BASES — DISINFECTANTS CLEANSERS — POLISHES — HOUSEHOLD INSECTICIDES, ETC.?

THERE is a real market among the readers of SOAP for all kinds of bulk and private label soaps, liquid soaps, disinfectants, deodorants, cleaning preparations, polishes, fly sprays, insecticides, etc.

MANY companies are not in a position to manufacture each and every product which goes to make up their complete line. Products not manufactured are, quite naturally, bought in the trade. Then, there are other manufacturers looking to expand their lines without increasing their manufacturing facilities. There is a considerable market for products of this type among sanitary supply houses. Are you in a position to handle this kind of business in your specialties?

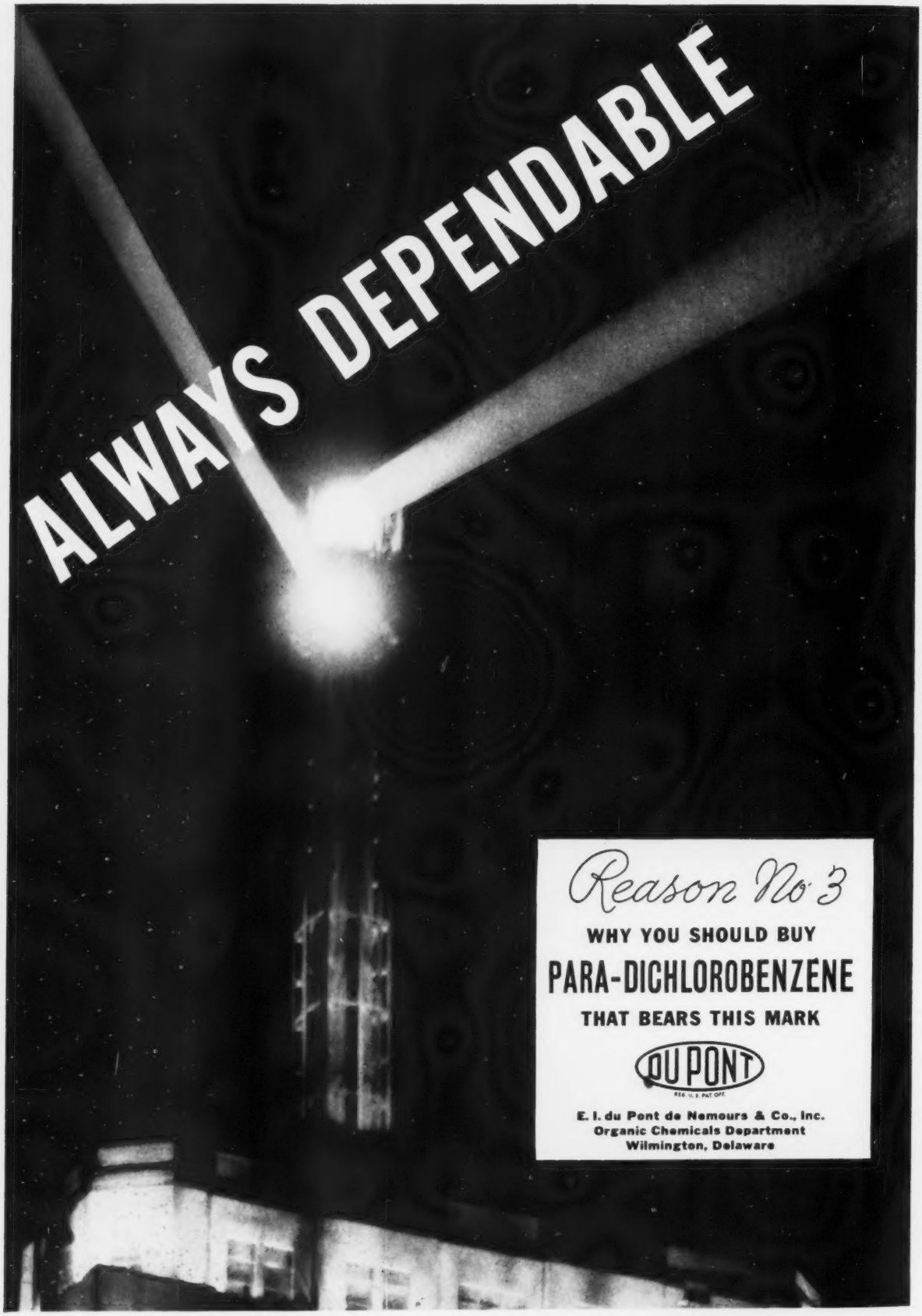
IF YOU do or can manufacture any of these products in a large way and desire to dispose of a portion of your output to be sold to other manufacturers and distributors, to be marketed under private brand or for repacking, it will pay you to apprise the trade of this fact through the advertising pages of SOAP. Ask any advertiser of bulk or private brand products about results.

Write to the Advertising Department of SOAP, 254 West 31st St., New York, for further information.

Colorfully lithographed tin containers compel attention—signify quality—*induce sales.* To manufacturers who would accord their products this competitive advantage, Continental offers a complete service which includes the three basic merchandising ingredients—research, design and package development.

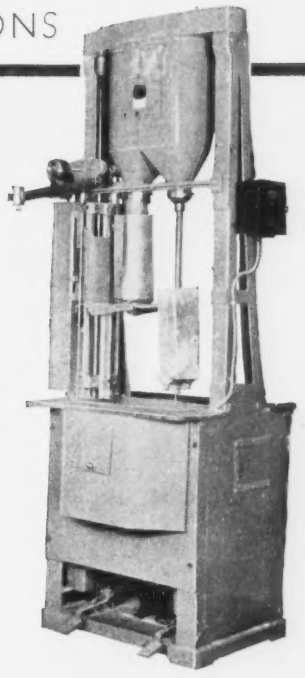
Continental Can Company

NEW YORK · CHICAGO · SAN FRANCISCO


ALWAYS DEPENDABLE
Reason No 3
WHY YOU SHOULD BUY
PARA-DICHLOROBENZENE
THAT BEARS THIS MARK
DU PONT
REG. U.S. PAT. OFF.
E. I. du Pont de Nemours & Co., Inc.
Organic Chemicals Department
Wilmington, Delaware

FILLS, WEIGHS, PACKS 1/4 oz. to 25 lbs.

CANS · CANISTERS · BAGS · CARTONS



The S & S DUPLEX PACKER & WEIGHER is one of the most versatile fillers you have ever seen . . .

With speeds varying from five to eighty packages per minute, and with pressures up to 120 pounds, the S & S DUPLEX PACKER & WEIGHER can be equipped to operate in six different manners:

1. Pack at one station, weigh at the other.
2. Pack at both stations, by pressure.
3. Fill by gross weight at both stations.
4. Fill by volume at both stations.
5. Fill by volume at first station, dribble fill for weight at second.
6. Bulk and dribble fill, by weight, at both stations.

There are probably a number of money-saving uses for this unusual filler in your plant. Write and ask S & S Engineers how it can be fitted to your particular requirements.

Convenient Payment Terms Are Available

STOKES & SMITH Co

PACKAGING MACHINERY — PAPER BOX MACHINERY

4915 Summerdale Ave., Philadelphia, U. S. A.

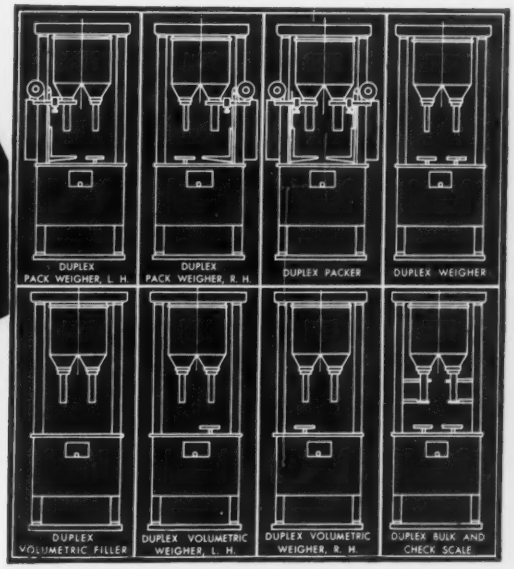
British Office: 23, Goswell Road, London, E. C. 1

Designed Particularly For . . .

Flour, Meal, Cocoa, Arsenate of Lead *and other insecticides,* Paste, Powder, Chemicals, Powdered Milk, Lime, Fertilizers and many other materials.

●

SEND FOR ILLUSTRATED FOLDER JUST ISSUED


DUPLEX PACK WEIGHER, L. H.
DUPLEX PACK WEIGHER, R. H.
DUPLEX PACKER
DUPLEX WEIGHER
DUPLEX VOLUMETRIC FILLER
DUPLEX VOLUMETRIC WEIGHER, L. H.
DUPLEX VOLUMETRIC WEIGHER, R. H.
DUPLEX BULK AND CHECK SCALE

IF YOU ARE LOOKING FOR REORDERS

then supply your customers with an electric sprayer that will give them the proper atomization and years of trouble-free service.

BREUER'S TORNADO ELECTRIC SPRAYERS

cost a little more, but in the long run they are by far the lowest in price because they perform with greater efficiency and will last for years.

TORNADO ELECTRIC INSECTICIDE SPRAYERS

are approved by the Underwriters Laboratories which means they are safe to use and equipped with approved materials and not cheap, unsafe substitutes.

Why not supply your customers with the best.

AGAIN Breuer Leads the Way

In Quality Electric Sprayers
With the New TORNADO MODEL 36

Automatic Time Switch—Volume Air Control
One Gallon Capacity, 1-3 H.P. G. E. Universal Motor

1/3 H.P. G.E. MOTOR
TIME SWITCH OPERATES 1 TO 45 MINUTES AUTOMATIC SHUT OFF
ADJUSTABLE NOZZLE SPRAYS IN ANY POSITION
VOLUME CONTROL FINEST DIFFUSING WITH WARM AIR
COMPRESSOR TYPE
1 GALLON CONTAINER

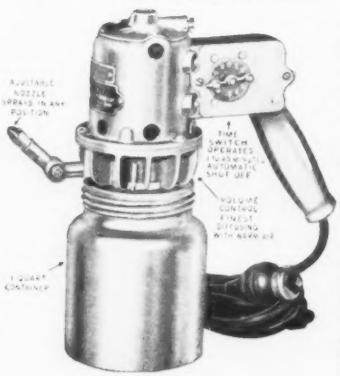
Here is the finest sprayer ever built. Similar to the now widely used Tornado Model 54 and retaining the automatic time switch, volume air control and adjustable nozzle features, the new Model 36 will spray a big volume of insecticide great distances in finest gas formation.

The patented principle of heating and compressing material does the trick. Just the sprayer you need for covering large distances and penetrating with the finest gas every possible source of insect existence.

Get the facts on this sprayer before buying!

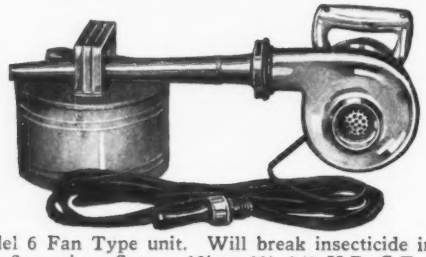
Model 50 Fan Type unit. A fine insecticide atomizer. Sprays distance of 8′ to 10′. ⅛ H.P. G.E. Universal Motor, 1 pint glass jar. 20′ of rubber covered cable.

Also most complete line of electric sprayers to meet every spraying problem.


ADJUSTABLE NOZZLE SPRAYS IN ANY POSITION
TIME SWITCH OPERATES 1 TO 45 MINUTES AUTOMATIC SHUT OFF
VOLUME CONTROL FINEST DIFFUSING WITH WARM AIR
1 QUART CONTAINER

MODEL 54—1 QT. CAPACITY

It features an automatic time switch set at any point from 1 to 45 minutes — sprays desired amount without any attention whatever — automatically shuts off. Can also be used for hand spraying. Adjustable nozzle can be set for spraying in any position. Also exclusive volume control adjustment permits spraying one ounce every two to four minutes with either fine or heavy spray. MODEL 53 same as Model 54 except does not have automatic time switch or adjustable nozzle.



Model 6 Fan Type unit. Will break insecticide into a very fine mist. Sprays 18′ to 20′. 1/3 H.P. G.E. Universal Motor. Norma Ball Bearings, 1 gallon metal container. This model is for larger institutions, warehouses, industrials, etc., and is also highly recommended for moth-proofing solutions. Write today for complete description and circulars.

BREUER ELECTRIC MFG. CO.

862 Blackhawk Street **Chicago, Ill.**

We do not sell insecticides. Our business is manufacturing sprayers.

Patented in U.S.A. and Foreign Countries

THESE SIX CANS SPAN THE HISTORY OF MODERN PACKAGING

These six containers—made by us for McCormick & Company over a period of thirty years—high-spot the history of one of America's most important commercial developments—the metal package.

They trace the growth of package design and color lithography—of simplified closures and handier sizes. They trace the change in the entire conception of putting things into packages . . . from the original notion that a package was merely a container to hold a product, to the modern understanding of the package as a merchandising force.

During these thirty years of package making, the technical, mechanical and merchandising skill of Canco men has steadily contributed to package effectiveness. Today this experience is helping to increase sales in every retail field.

AMERICAN CAN COMPANY

CANCO

Let Us Handle Your Disinfectant Problems!

Why take chances with contamination of your other products by making your own disinfectants?

Why not guard against the rejection of goods such as paper cups, liquid soaps, etc., which have absorbed disinfectant odors, when there is no real saving in doing your own manufacturing?

Let us supply you with your Coal Tar and Pine Oil disinfectants, delivered to you under your own brand-name, ready to ship to your trade—no bother, no odor, no trouble in your plant. Our extensive manufacturing facilities and years of experience in this line enable us to serve you with the highest quality disinfectants at a great saving over your present cost. It is worth your while to learn what we can do for you.

(Every lot is tested for germ-killing power, and the phenol coefficient is shown on the invoice.)

No sales at retail or to the consuming trade

BAIRD & McGUIRE, INC.

HOLBROOK, MASS. **ST. LOUIS, MO.**

New York City and New Jersey Representative

EASTERN STATES SUPPLY CO., 127 Troutman Street, Brooklyn, N. Y.

Phone: EVergreen 8-2498

SANITARY PRODUCTS

A Section of SOAP

Official Publication, Nat'l. Assn. of Insecticide & Disinfectant Manufacturers

The Editorial View

TO the credit of the membership of the National Association of Insecticide & Disinfectant Manufacturers is the resolution adopted at the recent meeting in Chicago to maintain voluntarily the wage scale and hours of labor set up under the code of the industry. They are to be commended likewise for their adoption of a resolution against child labor in any form. Although as far as we can determine, the insecticide and disinfectant code was never accepted by an appreciable proportion of the industry, if something akin to a uniform scale of wages and hours does come out of it, we believe that considerable will have been gained even though all firms, especially those in the South, feel that they cannot adhere to it in all respects.

IN a crisp, two-day session, the National Association of Insecticide & Disinfectant Manufacturers accomplished much during its recent meeting at the Edgewater Beach Hotel in Chicago. The total time of meeting sessions consumed exactly ten hours in the two days. The sessions were unusually well attended and the registration broke all records for a summer meeting. To the officers and committees, and especially to the President, must go the commendation of the membership. For the industry at large, even for those who are not members, vitally important work is being carried on with unusual effectiveness by this Association.

SOME confusion appears to exist in the minds of large consumers and some jobbers as to a definite and accepted specification for liquid insecticides. That such a specification exists in part only under the standard of the National Association of Insecticide & Disinfectant Manufacturers, is true. Perhaps a complete specification for a liquid household insecticide, as well as other types of insecticide, in clear, understandable terms, might be the next objective of the Association's scientific committees. A definite, *complete* specification is necessary, if we are to believe what we hear especially from jobbers and consumers.

According to a communication from the office of the Surgeon General of the Army, the Medical Department is preparing to standardize on certain types of insecticides for general use. The investigational work is being done at the Medical Section, Brooklyn Depot. Whether the Army is qualified to write its own insecticide specification on a genuinely practical basis, is open to question. We doubt it. At any rate, we believe some thought to a full, complete, and practical specification,—including a specification for oil base,—could be given to advantage by the trade.

AND from none other than the former head of the code authority of the insecticide and disinfectant industry, comes the recommendation that an attempt be made to set up a complete specification for a liquid household insecticide which might have some force in law. It is suggested that such a specification be complete and that it be drawn by a committee of the Association in conjunction with the Federal Specifications Board and, if possible, the Food and Drug Administration. The object evidently is to set a minimum which is not too high but which will be effective in clearing sub-standard products from the market. That there is a crying need for something which can accomplish this result effectively is quite apparent. Further steps to get this movement under way should be taken at once.

National Association of Insecticide *and* Disinfectant Manufacturers

OFFICERS

President ..... **Charles P. McCormick**
McCormick & Co., Baltimore.

1st Vice-President ..... **W. B. Eddy**
Rochester Germicide Co., Rochester, N. Y.

2nd Vice-President ..... **W. G. Griesemer**
Black Flag Co., Baltimore.

Secretary ..... **John H. Wright**
Zonite Products Corp., New York.

Treasurer ..... **John Powell**
John Powell & Co., New York.

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J. L. Brenn
Huntington Laboratories, Huntington, Ind.
W. H. Gesell ..... **Lehn & Fink, Inc., Bloomfield, N. J.**
H. W. Hamilton ..... **White Tar Co., Kearny, N. J.**
Stanton C. Kelton **Rohm & Haas, Inc., Philadelphia**
Dr. George Reddish
Lambert Pharmacal Co., St. Louis
Wallace Thomas ..... **Gulf Refining Co., Pittsburgh**
S. S. Selig ..... **The Selig Co., Atlanta**
Dr. Robert C. White
Robert C. White Co., Philadelphia
W. J. Zick ..... **Stanco, Incorporated, New York**

MEMBERSHIP

Active — Open to manufacturers and wholesale distributors of disinfectants, germicides, deodorants, insecticides, liquid soaps, polishes, and allied products. Dues —$75.00 per year.

Associate — Open to firms supplying raw materials, containers, equipment, etc., to the membership. Dues—$50.00 per year.

For further details, communicate with

NATIONAL ASSOCIATION OF INSECTICIDE & DISINFECTANT MANUFACTURERS

John H. Wright, Secretary

CHRYSLER BUILDING **NEW YORK**

Notes of the Trade

Edgar A. Murray Company, Detroit, maker of "Doom" insecticides, launched an aggressive radio campaign May 15, in anticipation of the insecticide market opening up with the approach of warm weather. Spot announcements were used over 29 radio stations in states where the company has established distribution.

McLaughlin Gormley King Company, Minneapolis, announces the association of P. E. Falkingham, 5 Prospect Place, New York, as eastern representative for insecticide base materials. Mr. Falkingham has been identified with the chemical and allied industries both in United States and abroad since 1915. He is well known to the trade as he formerly operated under his own name at 50 Church Street, New York.

Standard Oil Co. of Indiana are now offering their new Indiana No. 10 base oil for manufacture of liquid insecticides. This oil is deodorized and shows a sulfuric acid adsorption of only 0.6 per cent as compared to 2.5 per cent for ordinary kerosene. Their Indiana No. 9, which is not a deodorized base, has been used for insecticide manufacture for some time.

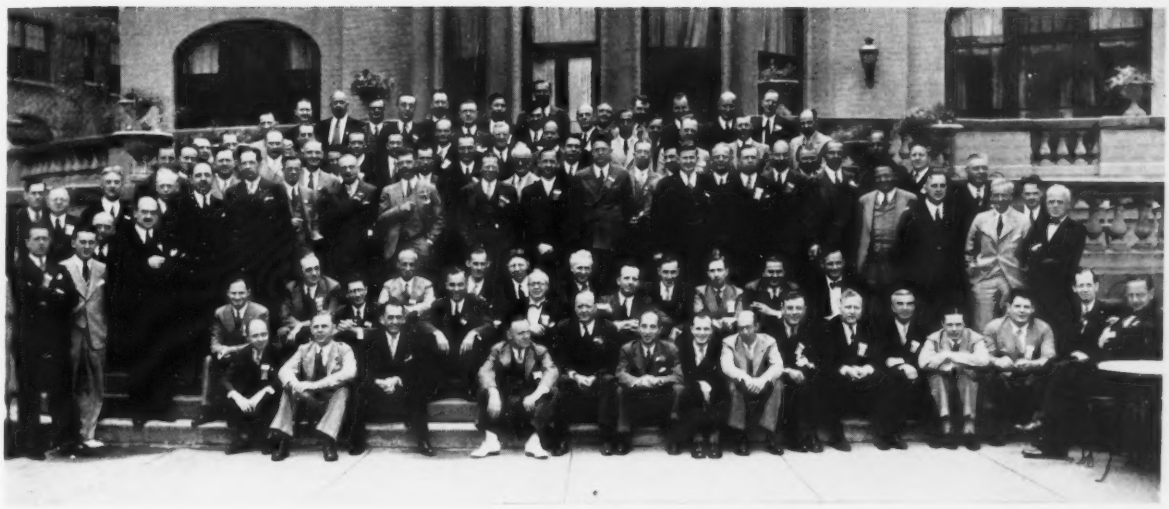
N. V. Cole Co., New York, has recently taken over the plant and equipment of the Cole Chemical Co., 5201 Van Dam St., Long Island City, and will operate under the latter name from Long Island City, continuing the manufacture of disinfectants, insecticides, soaps, sprays, deodorants, etc., plus a line of industrial and laboratory chemicals.

Huntington Laboratories, Huntington, Ind., are marketing a new protection against mosquito bites under the name of "Skeet-X," which comes in a form like a cold cream, is without unpleasant odor, and cannot irritate the skin.

Windsor Wax Co., manufacturers of waxes of various types for the jobbing and repacking trade, have moved their offices from the plant at Hoboken, New Jersey, to 53 Park Pl., New York. A show room has been set up at the new location.

Dr. William Dreyfus, West Disinfecting Co., L. I. City, N. Y., sailed June 4 on the S. S. *Statendam* on his annual summer vacation trip. This is the fiftieth anniversary of Dr. Dreyfus' first European crossing. He will be at Oberendingen, Aargau, Switzerland, during June, July and August.

The Wonder Products, insecticides and fumigants, have established a new place of business in Portland, Ore., at 1314 Southeast Hawthorne Boulevard.



Hold 21st Annual Mid-Year Insecticide-Disinfectant Meeting

THE twenty-first mid-year meeting of the National Association of Insecticide & Disinfectant Manufacturers, held June 10 and 11 at the Edgewater Beach Hotel, Chicago, went on record as favoring a voluntary continuation of wages and hours as set by the NRA, and also the continued elimination of child labor in the industry. In reviewing the history of the insecticide and disinfectant code, Dr. Robert C. White, chairman of the code authority, recommended that the industry voluntarily maintain the wages and hours of the code. He also called for a more definite specification and standard for liquid insecticides, and suggested the writing of a new complete specification in conjunction with the Food and Drug Administration, and the Federal Specifications Board. He also stated that all money paid in under the code would be returned pro rata by the accountants who handled the collections.

The Association also took the initial steps to combat unfavorable publicity which has been received by many disinfectants, antiseptics, insecticides, deodorants, and allied products recently by appropriating a fund to be used by a committee for educational purposes. The work of the committee will be primarily in the dissemination of publicity material on the purposes and uses of these products based on scientific findings. The committee is composed of Dr. George Reddish, Lambert Pharmacal Co., St. Louis; Dr. Emil Klarmann, Lehn & Fink, Inc., Bloomfield, N. J.; W. J. Zick, Stanco, Inc., New York; Wallace Thomas, Gulf Refining Co., Pittsburg; Dr. H. D. Pease, Pease Laboratories, New York; Dr. Robert C. White, Robert C. White Co., Philadelphia; Ira P. MacNair, MacNair-Dorland Co., New York.

In a crisp two-day meeting at which all previous attendance records for a mid-year convention were broken, the Association discussed many of its important problems and heard a number of prominent speakers. Dr. F. Tattersfield of the Rothamsted Experimental Station at Harpenden, England, and widely known authority on pyrethrum and other insecticides, spoke. His address was followed by questions from the floor of the meeting which he answered. G. F. Hogg of the Hercules Powder Co. read a paper on pine oil disinfectants. A paper on athlete's foot by William Hadfield of the General Laboratories, Philadelphia, was given by W. B. Eddy of the Rochester Germicide Co., Rochester, in the absence of Mr. Hadfield. James F. Hoge, general counsel for the Proprietary Association, gave an interesting summary of pending legislation affecting the insecticide and disinfectant industries. (These and other papers presented at the meetng, as well as the reports of various committees, are published elsewhere in this issue or will appear in the next issue of *Soap*.

The meeting closed with an informal beefsteak dinner on Tuesday evening in the Michigan Room of the Edgewater Beach Hotel. There were no formal addresses, but plenty of informal ones. There were ten acts of a floor show, not counting those put on by the membership itself. About 150 attended the banquet. Prizes for the winners of the golf tournament, which had been held on the previous Sunday afternoon, were presented. H. M. Clark of Dr. Hess & Clark, Inc., Ashland, O., was the winner of the low gross prize and was appropriately crowned gold champion of the industry. Low net prize, which apparently was the prize presented to the player able to

do the most effective talking to the handicap committee on the first tee, was presented with due ceremony to A. L. van Ameringen, van Ameringen-Haebler, Inc., New York.

Reports and addresses presented at the meeting follow:

Are We in Reverse Gear?

Address of the President*

By CHARLES P. McCORMICK

C. P. McCormick

WHY has the Insecticide Association gone "Haywire" or gone to "Purgatory" when it can be saved? Originally the Insect Powder industry in this country was controlled by an outstanding, reputable house that packed a good grade of Insect Powder, gave satisfactory service, and collected a legitimate profit. Later, becoming a little greedy and seeing an opportunity to make more money as they erroneously thought, they contaminated the powder by adding a filler or adulterant.

Meanwhile there were two other houses in the United States packing pure Insect Powder of the highest quality and selling their respective products in two different fields and using different types of containers. Both were actuated by the desire to sell their trade the highest quality insect powder they could get regardless of price, and were satisfied to receive in return only the nominal profit justified by the sale. These two houses eventually forged into the lead and having control of the majority of the business in the country, earned and established a national reputation for their respective brands of insect powder, while the adulterated product finally was unknown.

With the increased popularity of powder, competition came from local, semi-national and national manufacturers. The general viewpoint was that if it is a good business for some, why not enter the field and make a success with cut or cheaper products? They overlooked the cost and expense of retailing an article, the labor involved in educating every retailer in their section of the country on the uses of Insect Powder, which is a vital part of the work, and also the high cost of consumer advertising necessary to prevent a seasonable article from being kept too long for fear of deterioration. They saw only the glamor of the large sales volume and the fact that the two leaders were prospering. They were interested only in acquiring some of the "easy money" as they thought. They were not merchandisers but traders. They came into the market with a larger package, to which adulterants had been added to enable them to cut costs and take care of the necessarily larger advertising campaigns of the leaders. They had cheapened their products and raised questions in the minds of the consumers regarding the whole industry.

The wholesalers seeing a new product and being flattered with the prospective increased percentage of profit and larger package, ignored its defects and accepted it with wide open arms because they could get exclusive sale on an unknown brand that was not being offered to all other wholesalers for the moment. The excessive profit tempted them. In this way, small insect powder houses got a start in the field and for a year or so they literally upset the business in many areas. Salesmen of quality houses were greatly disturbed—felt that their firms should follow suit, but they would not, and eventually these adulterated products and temporary large-profit-paying, larger-package houses, and the fancy patented bellows type—disappeared over the horizon one by one. The merchant that bought them, the consumer that used them, and the wholesaler that pushed them lost out eventually also.

The only advantage the market derived from the chiseling adulterating manufacturer was that he created more interest in Insect Powder and opened up more possibilities for the sale of insecticides in the future. The bad effect was that many people discontinued using Insect Powder, believing that it was ineffective and they had been "gyped". The innocent suffered for the guilty. Quality survived as it always will.

At that time there were a few small manufacturers in local communities and a few larger manufacturers trying to enter the field, because of the "kicks" against adulterated powder by promoting the sale of a liquid spray that would evaporate quickly and not leave any signs of dust after using it. This brought about the second revival on liquid spray for there had been liquid sprays of a different type years ago, and the high peak of advertising liquid insecticides on a large scale reached during the past few years.

The insect sprayer, later followed by the sprayer guns, did magic work in selling this mist of death. The leading insect powder manufacturers realized full well that there was a field for this type of insecticide among certain insects, but believed that it might be too costly, and while some went into the field immediately, others stayed out. The unfortunate thing is that practically the same process or situation developed in the liquid spray field as did in the insect powder field by so many people who were interested not in reputation, not in giving quality merchandise, and not in securing a reasonable justifiable profit, but only interested in overpowering the market or selling as cheap a piece of goods as possible in order to get the business. There were a few leaders who felt that quality did pay and they succeeded.

The result, in my personal opinion, was that too many liquid sprays have been inefficient, poor-quality insecticides, and are practically in the same class as the "adulterators" of powder days. These chiselers have caused heavy damage. Many consumers have ceased using spray either because of the cost or the wrong impression given them by smelly, bad-odor insecticides. Quality will again come into its own and my advice to those in the business is that they improve their quality or else they will ultimately lose out.

* Before the Natl. Assn. of Insecticide & Disinfectant Mfrs., Chicago, June, 1935.

The main difference between 1919 and 1935 is that today the average manufacturer places the emphasis on the cheapest or lowest price house in the field, whereas in 1919 we used to look up to the leaders—quality, high-priced houses. The viewpoint seems to be changed. Apparently we are in reverse gear and if we can get into low gear in 1935, maybe we can go into second in 1936, and perhaps into high gear in 1937, but as long as so many research men today are looking for economies rather than improvements and service to the consumer, and so many salesmen are afraid of cut-price houses instead of competition from fine quality products, while the same ideas are permeating the minds of our customers, so long will we be in "reverse gear".

For example: Today if a retailer buys $50.00 worth of insecticides a week, a competitor can easily come in and show him that he is foolish to pay such a high price for a good national or semi-national product with a fair value, and offer him the glorious opportunity of making more money on a cheaper product, enhancing the value, etc. The truth of the situation is that this man is in reverse gear for he is thinking in terms of temporary success versus permanent success. Quality will always be the permanent type of success, for if the retailer substitutes and sells the cheap, chiseling type of insecticides to his trade, they will eventually cease buying his product. It will affect the rest of his business likewise and he will ultimately face failure if he does not change quickly to something that will satisfy his customers. Incidentally, it serves the manufacturer right for encouraging this attitude and it is time that we, as an Association, individually and colectively, should change our viewpoint and change the ideas of our salesmen regarding what is competition.

Summing up the above, I believe that the average Trade Association is also in reverse gear. We have been giving too much thought to economies, to chiseling, to meeting low-price friends, cutting quality, educating the buyer of many supplies to make his product stretch further, and talking too much about price instead of talking service and efficiency or effectiveness. A trade association should be a common melting pot for our views. Discussions and arguments should be brought to one place, discussed in a closed room, with or without coats off, and our minds should be relieved of the various things they have on them from time to time.

Furthermore, an association should be a common meeting place for all manufacturers interested in a common product, but a multiplicity of trade associations within one industry leads to confusion and in the final analysis will bring a lack of interest to those engaged in it. I endorse heartily segregation and grouping of interests in the parent association.

Furthermore, a trade association should be free from political factions, for political factions mean personal privileges, and personal privileges eventually break down the whole structure of an organization that is co-operative in its functions.

By the same token, anything that may tend towards destroying or shifting into reverse gear should be avoided. All of us want to live better, we strive to attain greater heights, and it is against human inclination to trade downward, therefore let us give consideration to the uplifting and general elevation of all problems in regard to quality and better service to the consumer, and make price, "cuts", and inferior quality purely secondary. Our standards must be elevated if we are to elevate the industry and certainly as we have gone through some very serious times, we should never again be ready to listen to the temptations of the "reverse gear" method.

Diminishing Returns on Disinfectant Sales?

Report of Disinfectant Committee*

By W. B. EDDY, Chairman

FOR the disinfectant industry, 1934 was a mighty interesting year. It dawned rosy with expectations of an administrated prosperity for employers and employees. When the mists cleared away, it showed employees generally benefitting by shorter hours and slightly higher wages, while employers were tied closer to the good old rule of hustling to make the payroll. The result of the hustle for domestic disinfectant business is any man's guess, no Federal census having been taken since 1933, but estimates venture an improvement of between 10 per cent and 20 per cent over 1933 sales. In export sales an improvement of 22 per cent in dollar sales is reported by the U. S. Department of Commerce. It is interesting to note that, of these exports, a sizable increase went to Canada and to our South American neighbors. In Europe, our exports to the three dictator-controlled countries almost completely disappeared. Another argument for democracy!

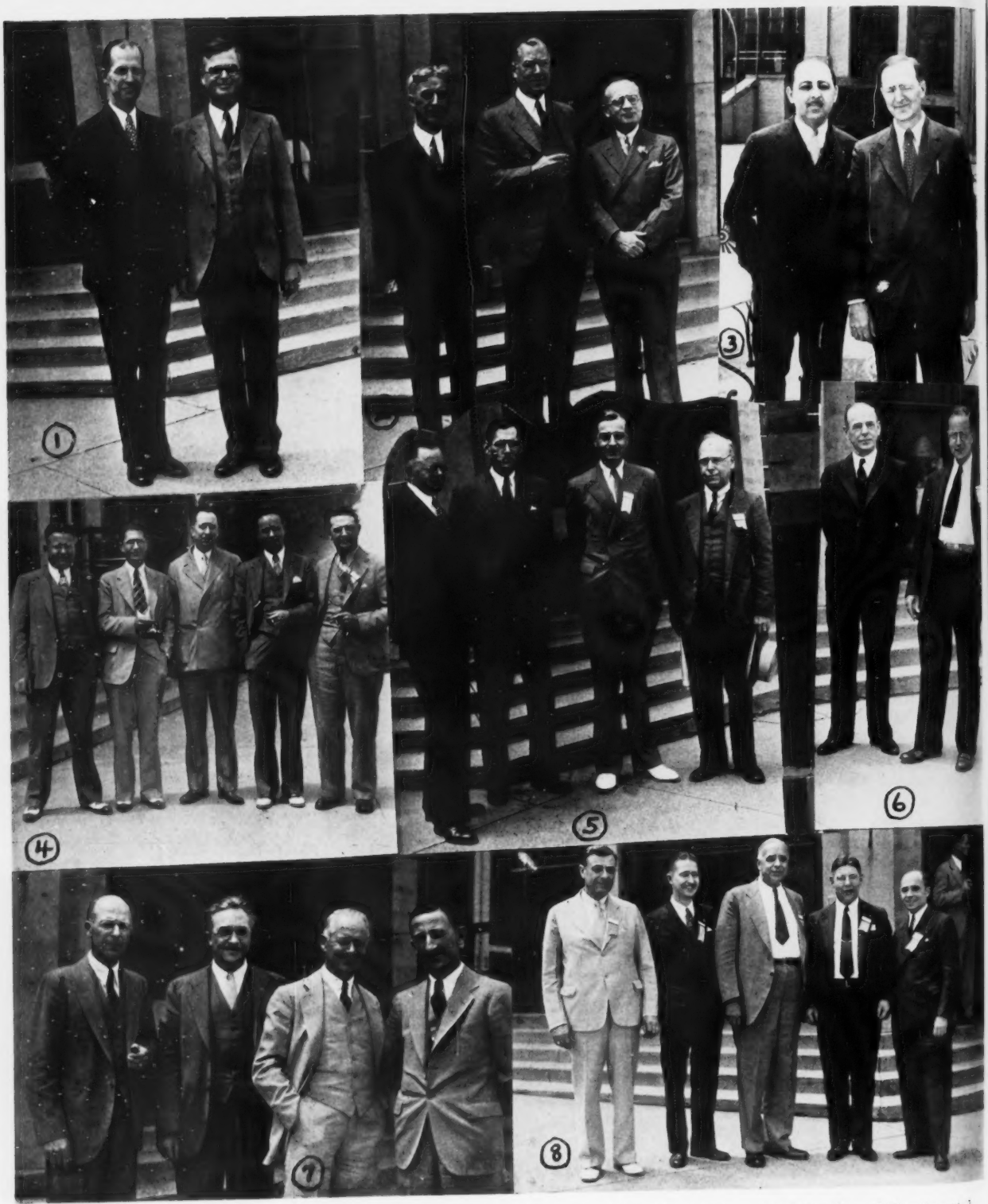
Your Committee has particularly studied what it considered the main problem of the industry—the selling problem. As in most other mature industries, the available production far exceeds the demand. Consequently, to move the goods, more sales outlets have been opened, competition intensified, and the never-yet-repealed law of diminishing returns took its toll of price and profit. The middle of the year saw a general effort to advance prices on coal tar and pine oil disinfectants, an offset to rising costs of materials and production. The success of this may be somewhat gauged by the uniformly low bids on state and municipal contracts. In many cases the contracts were placed at prices below the raw material costs.

In the direct sales field, the sales problem was complicated by the fact that janitor supply houses, paper houses and other direct selling agencies have added a side line of disinfectants for the purpose of securing volume to carry their overheads. In too many cases, the price policy and the salesman's compensation plans, used by these sellers, raised hob with the market. Where prices were set, the profit mark-up was based on standard fast-moving lines, like paper, with no consideration of the higher costs of selling and handling disinfectants. Still worse, in some cases, pricing was left to the salesman, who split the gross profit with the house on each sale. Gouge this customer, and give the other a special inside figure. For the peace of mind of the Consumers' Board, it may be said that the inside figures outnumbered the gouges.

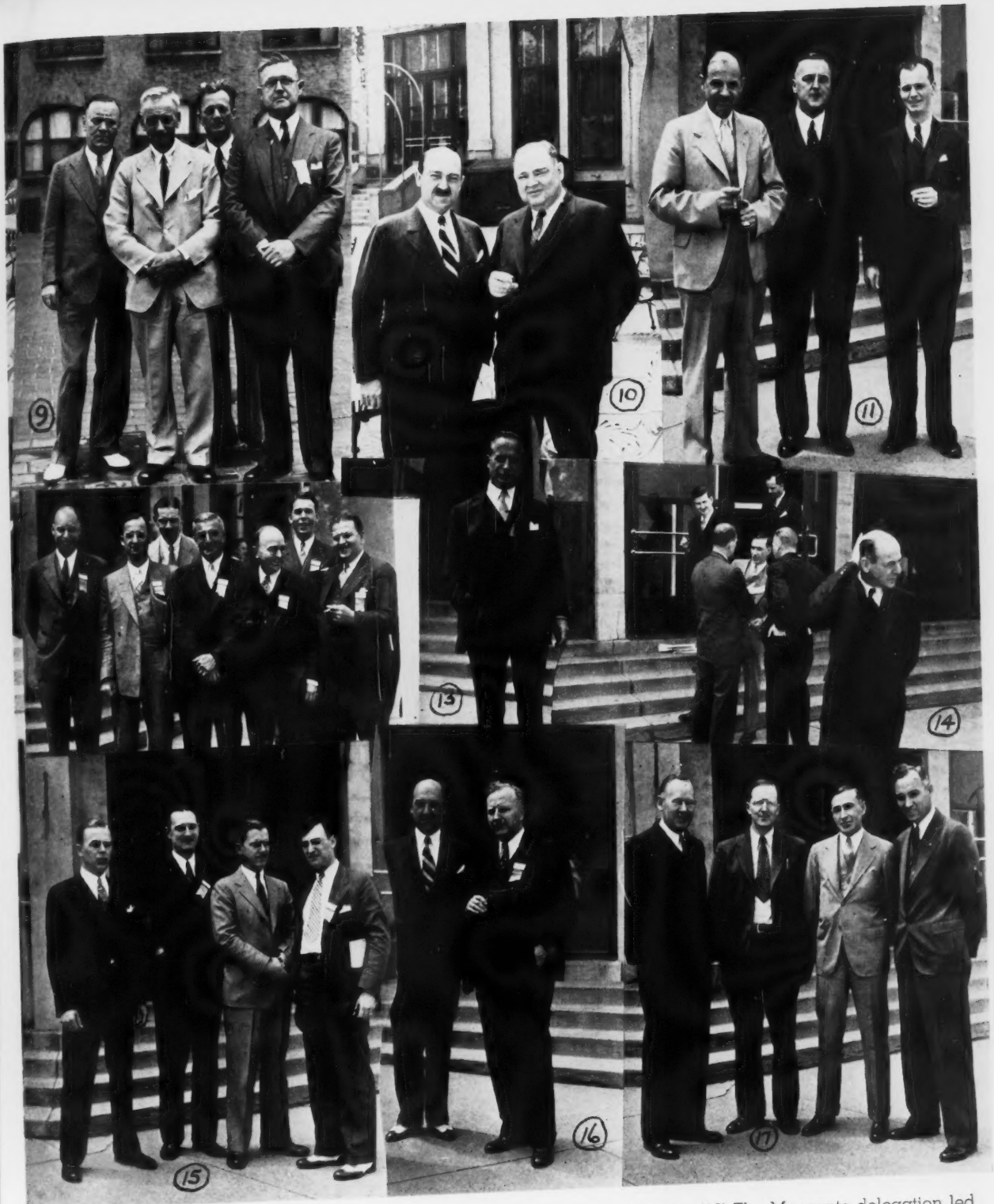
Last, and least important, were the numerous one-man businesses, run by ex-lawyers, ex-tailors, ex-almost-anycalling. This little army of rugged, often ragged, individualists took orders for what they could sell, and mirabile dictu, drove their cars to the manufacturers for

(*Turn to Page* 103)

* Before the Natl. Assn. of Insecticide & Disinfectant Mfrs., Chicago, June, 1935.



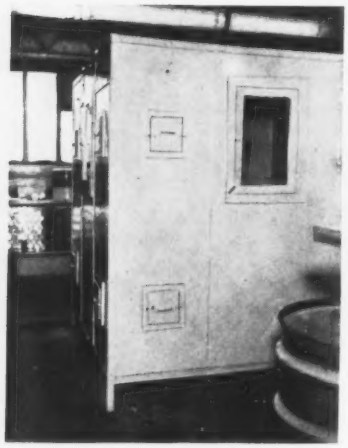
At the 21st annual summer meeting of the National Association of Insecticide & Disinfectant Manufacturers at the Edgewater Beach Hotel, Chicago, June 10 and 11. (1) C. P. McCormick of McCormick & Co., Baltimore, president of the Association, and W. G. Griesemer of The Black Flag Co., Baltimore, vice-president. (2) Drs. Pease of Pease Laboratories, Reddish of Lambert Pharmacal Co., Klarmann of Lehn & Fink. (3) Two Thomases, —Thomas of Shell Oil on left and Thomas of Gulf Refining on right. No relation. (4) Solinsky of Continental Can, Nelson of Stanco, Hamilton of White Tar, King and Bevernick of Prentiss. (5) Kroneman of Sherwood Petroleum, R. Kennedy, Wizemann of Dept. of Commerce, and Philbrick of Skinner & Sherman. (6) Dr. C. C. McDonnell of the Food & Drug Administration, and van Ameringen of van Ameringen-Haebler, Inc. (7) E. E. Martin of Holcomb, James W. E. Harrison, Huckins



and Grady of Sinclair Refining. (8) Deutsch and Paul F. Loris, Curlett of McCormick, Nelson of Chemical Supply, and Lynch of John Powell & Co. (9) S. B. Penick of S. B. Penick & Co., Dr. F. Tattersfield of England, Harold Noble of Penick, and Dr. R. C. Roark of Dept. of Agriculture. (10) Bell of S. H. Bell Co. and Gothard of Sinclair. (11) Badertscher of McCormick, Gnadinger of McLaughlin-Gormley-King Co., and Weed of John Powell & Co. (12) The Monsanto delegation led by Roland Sturhahn. (13) The "Notorious" LaCava, Continental Can's prize blond. (14) Dr. McDonnell refuses to answer. (15) Pollnow of Vestal Chemical, Weirick of Dolge, W. J. Weed, and Mel Fuld of Fuld Brothers. (16) Sam Bell, and Breuer, of Breuer Electric. (17) Bohlen of Sinclair, Thomas of Gulf, Zick of Stanco, and Neptun of Allaire-Woodward.

SECTION 6F
FLY BREEDING ROOM

PEET-GRADY TESTING
CABINET



HUMIDITY AND TEMPERATURE CONTROL

"DI-BUG" PYRETHRUM EXTRACTS and POWDERS

are biologically tested in our Peet-Grady Laboratory. When you buy DI-BUG Extracts (No. 20, No. 5, or Steam-o-cide) you are assured of a considerably higher kill than the minimum required by the Peet-Grady Test. Insecticides which KILL spell your success. Play safe and buy DI-BUG Pyrethrum Extracts and powders.

SPRAYSENE

The Scientific Insecticide Base Entirely Free from Kerosene Odor

Many so called deodorized kerosenes do not deserve this name. Others do not run uniform. At our Warren, Pennsylvania Refinery special care is taken so you can depend on a uniform product always. SPRAYSENE is always stable and helps to retain the toxicity of your insecticide. High flash point of 175° F. makes SPRAYSENE safer. Its low end point insures complete evaporation.

SHERWOOD PETROLEUM COMPANY, Inc.

BUSH TERMINAL, BROOKLYN, N. Y.

Branches or Agents in Principal Cities

(*From Page 99*)

the purchases, delivered and collected for them. They kept their corporation books under their hats, beyond reach of income tax publicity.

We will face competition of these types of our standard lines as long as tough-going faces most businesses and jobs are scarce. Your Committee recommends to the jobbing manufacturers the system, followed by some, of publishing suggested resale prices to the supply houses who sell their lines. This helps the sellers to help themselves to a decent return for their effort; tends to create a fair market for all.

The urgent call of our Industry, to produce the real stimulus we need, is for new ideas, new uses, new products, new methods of merchandising. Where would our leading industry, the automobile business, be today without these? That industry gives its salesmen, its prospects, something new to talk about every season. Sometimes the new ideas are bad, but on the whole, they're good! Even our Insecticide friends got up a new idea two years ago. They stupefied the insects in a Turkish steam bath. That awakened the prospects—sometimes with a bang!

Many new disinfectant materials are now commercially available, with excellent features for replacing or improving our present lines. Commercial laboratories now offer forms of Cresol and Cresylic derivatives and Phenolic derivatives that add remarkable virtues to disinfectants. Some of these show Phenol-Coefficients against B. Typhosus as high as 300; against Staphylococcus Aureus of 240. True, they are costly, but a little goes a long way. These products have been referred to by the Disinfectant Scientific Committee; some are in effective use by progressive manufacturers. We recommend them for further development.

Excellent progress is being made by some firms in the sale of special-purpose products. While many salesmen are soliciting the business on the all-around disinfectant, the special-purpose man is steadily getting his repeat orders. Specialists in control of Athlete's Foot Fungus, or in the treatment of canning factory waste by-products, or in making machine-cutting oil compounds safe for the users, have either stepped out of the "Chic Sales" class, or have materially increased their normal business. Our magazine advertised friends have made us conscious of needs we never knew existed, with favorable results, on the market prices of their stocks. For the sake of our future, let us give our research laboratories more of a play and to our hard-driven salesmen and customers, more of the new.

Report of Insecticide Committee

By W. G. GRIESEMER, Chairman

YOUR Insecticide Committee, in an endeavor to make insect sprays more popular and more generally considered a household necessity, is studying a group of twenty "so-called" popular representative products in an attempt to determine just what the consumer thinks he is purchasing versus what he really secures, this study being based on price, claims on package, odor, and effectiveness. Effectiveness helps determine repeat business, but there are other factors to study first.

The first consideration in an original purchase of insect spray is undoubtedly "price". Of the twenty types used in this survey, twelve were purchased at retail prices from 40c to 50c per pint, and eight from 20c to 25c per pint. This wide spread of price raises a question in your mind as well as in ours "Do the cheaper sprays kill insects?" At the December meeting a full report will be made regarding the effectiveness of these sprays, tests being made by Peet-Grady method.

It is agreed by all interested parties that misinformation and false claims are damaging not only to the integrity of individual manufacturers, but do an injustice to the industry at large. With this thought in mind your committee has examined claims and directions for uses as printed on the cans of the various samples obtained. We found that as a group these claims were generally modest with one or two notable exceptions. One statement that was emphasized on practically all packages was: "Will Not Stain". Many had directions as to proper use of the spray eliminating this possibility; others merely made the statement and followed it with the phrase "when used as directed", and failed to give specific instructions. Your committee feels that by not giving full directions as to use of a spray on clothes or delicate fabrics, it is damaging to the industry as a whole; for example, if a person should use any spray upon clothing or delicate fabrics and not use ordinary precautions, disastrous results would be obtained and all sprays condemned. This point, for whatever it is worth, is being raised so that all concerned may give it consideration.

Certain uses are advocated by a number of manufacturers for their products; namely, using insecticides as cleansing agents for enamelware, porcelain, glass, etc. While undoubtedly they can be put to such uses, we should remember they are made primarily to kill insects. The question your committee would like to raise is why should such uses be emphasized when there are products on the market made for these specific purposes. Another property that is emphasized on many packages is the ability of the product to act as a deodorant. We would again ask what connection this has with killing insects and will this increase the sale.

Your committee further recommends directions be included on all insect sprays cautioning against the use of such products on plant foliage. This suggestion is made because the average user of an insecticide will use it for anything, unless he is told not to.

We note with gratification that the general appearance of containers has been greatly improved in 1934-35. Some sprays that were formerly packed in glass are now being marketed in attractive lithographed tins and other containers, and many have been redesigned to create a more pleasing appearance, all of which denotes progress.

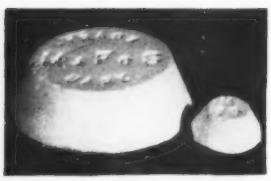
One factor that enters into repeat orders for insect sprays is the odor. Realizing, of course, that many different opinions prevail as to the proper odor of spray, blind tests of the twenty brands were made before a representative group with the following results based on presumably unbiased opinions:

45% were unobjectionable
55% were decidedly objectionable

The above results point out the necessity of study on the part of manufacturers as to the type of odor that appeals to the consumer. It is noted there has been an increased tendency toward the use of floral odors, but in their present state of development they did not appeal to the group assembled. This did not apply to all sprays with floral odors. It applies to those in which the floral odor was too predominant. It is interesting to note that the cheap sprays have a strong as well as objectionable odor.

Mathieson Solves an Old Problem in a New Way

Slo-Dissolving Briquets Cut Cleanser Costs—Turn Out Cleaner Dishes



A pioneer for forty years in manufacturing chemical raw materials for American industry, Mathieson now offers the first cleanser designed exclusively for mechanical dishwashing—MaFoS. This unique cleanser is a simple combination of detergents in an entirely new physical form. It acts differently in the machine because it is made differently.

MaFoS comes, not as a powder, but as slo-dissolving briquets and tablets. It is a balanced combination of mineral phosphates and carbonates blended for maximum efficiency in dishwashing machines. MaFoS does not soften up in contact with water, but dissolves slowly as the machine operates, automatically supplying the wash solution with just enough cleanser to wash dishes clean throughout the entire wash period.

Restaurants, hotels and institutions have been quick to see the advantages of this new kind of cleanser which dissolves slowly and uniformly . . . which avoids the wastefulness and uncertain results of quick-dissolving powders. Nation-wide chains, as well as carton-a-month buyers, specify MaFoS, for they know that MaFoS turns out cleaner dishes at a lower cost per day.

MaFoS is packed in this convenient carton containing 32 briquets (72 lbs.) and 10 lbs. of two-ounce tablets . . . also in barrels containing 300 lbs. of briquets and 50 lbs. of tablets. MaFoS briquets are compact and easy to handle . . . there is nothing to spill or waste . . . commissary control is made simple and accurate.

MaFoS slo-dissolving tablets are also packed separately in 25-lb. cartons and 125-lb. kegs.

TO DISTRIBUTORS: Good territories are open to reputable supply houses familiar with this field. Write us for details of our distributor arrangements.

The MATHIESON ALKALI WORKS (Inc)., 60 East 42nd St., New York, N. Y.

Caustic Soda . . . Soda Ash . . . Liquid Chlorine . . . Bleaching Powder . . . Bicarbonate of Soda . . . Anhydrous Ammonia . . . Aqua Ammonia . . . HTH and HTH-15 . . . Solid Carbon Dioxide

We believe that the industry should guard against false and fallacious information disseminated by the ignorant and unqualified. One of the outstanding wholesale grocery houses in the Middle West recently sent a letter to their friends and customers in which they intimated that fly spray manufacturers were making an exorbitant profit on their products, and suggested in this letter that the grocer make his own fly spray by purchasing from them one pound of a concentrate, and gave the following directions for its use:

"Mix two gallons coal oil at approximately 6c per gallon with one pound of concentrate at $1.00 per pound. Allow to stand three days to settle. Then add a small amount of oil of salicylate. You then have a finished spray at 56c per gallon. Then instructed the customer to put this spray in a mason jar and sell it to the trade at 59c per quart."

They emphasized the large profit for the retailer. This is but one example of many such statements that has come to the attention of your committee. Therefore, may we again recommend that the following points be stressed:

1—Insecticides should be effective for the purpose for which they are manufactured: namely, killing insects.

2—Odor should be pleasant and not repulsive.

3—They should be packed in attractive containers both as to appearance and keeping qualities.

4—There should be no claims that cannot be substantiated, and full directions as well as cautions should be clearly stated on every package.

5—Inasmuch as there is much local competition in other instances, every manufacturer belonging to this association should advertise his products in such a manner as to keep them before the public in their true light.

Commercial Aspects of the Peet-Grady Test

By Dr. ALFRED WEED, Chairman*
Insecticide Standardization Committee

A S A method of grading liquid insecticides of the fly spray type, the Peet-Grady test has been given too much commercial pressure. It is felt by many members of this committee that the results of the tests are abused by some members of the industry. There are plenty of indications that results which are unnecessarily high, in terms of the percentage kill, are sought continuously for use in sales propaganda. With some of us the method has been a boomerang, placing good sprays as inferior—poor ones as good.

Past experience, in the collaborative tests reported by this committee, have demonstrated that satisfactory comparisons on sprays of considerably different strengths are obtainable in most every laboratory using the method. Unfortunately, however, for the method as it now stands, different laboratories are not in agreement on the same sample.

This method has never been recommended for splitting hairs on quality. Those of us familiar with the procedure are convinced that it provides a means of accurate *relative* placement of sprays which are appreciably different in strength.

There are three subjects pertaining to the test and its findings which this committee believes should be brought before the association at this time. Two of these have been mentioned (1) the abuse of the figures of tests (2) lack of agreement in laboratories on identical samples. The third is the matter of variance, degree of accuracy or what constitutes a significant difference between sprays.

We all have experience as to the abuse of the results. Many of us have been called upon for official examinations of sprays to meet certain specifications. In most instances, any real good spray would meet such requirements. On how many occasions, however, have any of us been called upon to check deliveries? Your chairman has two occasions where deliveries were in no way like specifications; in one instance at least an entirely different insecticide was substituted. Where possible your committee suggests not only the examination of submitted samples, but the examination of actual deliveries. While this committee is not cognizant of the price structure of these insecticides, it goes without saying that materials as called for by some of these specifications cannot be produced—to say nothing of selling—at forty cents a gallon. It is simple enough to submit to any laboratory running these tests, a sample and utilize their report for any commercial product corresponding to the markings carried by the submitted sample. We have no evidence of such practices occurring within this association but know them to occur in the industry.

Your committee can well understand the chagrin of Mr. Jones when identical samples are submitted to different laboratories and his reports fail to show agreement. He should, however, have no difficulty in interpreting the correct placement for his line of products by introducing in the series a sample of an insecticide that he knows something about. In general, an appreciably better product, will be found so by all the laboratories he may call in to assist him. We hope to find an insecticidal material which may serve to eliminate some of the difficulties above mentioned.

Unfortunately, for many of us, buyers are prone to consider a difference of a point or two in the percentage kill obtained, as a significant indication of superior quality. For the present your committee feels that the degree of variation is materially more than previously supposed by buyers.

The association must consider these aspects of the method—, (1) that there may be wide differences between laboratories running the same sample; (2) that an undetermined variation is inherent in the method; (3) that accurate placements in the correct relative position of appreciably different strength materials are characteristic of most laboratories using the method; (4) that undue selling pressure has resulted in abuse of these results; (5) that through the use of standard insecticidal material your committee hopes to bring about better agreement; (6) that this committee feels that in view of the above, the results of the Peet-Grady Quality Test should not be employed as a sales argument.

*Before the National Association of Insecticide and Disinfectant Manufacturers, Chicago, June, 1935.

Perfumes For

THEATRE SPRAYS

It makes no difference whether you use Alcohol, Alcohol and Water or Water alone as a base—we can furnish the proper perfume oil to produce an absolutely clear spray, without filtering. Furthermore, our perfumes will prove extremely popular with your customers.

Three Types

Standard Spray Odors for Alcohol Base Sprays	Special Spray Odors for Alcohol and Water Sprays	Super Soluble Bases for Water Base Sprays
$3.00 lb. in 1 lb. lots	$2.60 lb. in 1 lb. lots	$1.75 lb. in 1 lb. lots
2.90 lb. in 5 or 10 lb. lots	2.55 lb. in 5 or 10 lb. lots	1.70 lb. in 5 lb. lots
2.80 lb. in 25 lb. lots	2.50 lb. in 25 lb. lots	1.60 lb. in 25 lb. lots
Use 1 oz. to 1 gallon.	Use 1 oz. to 1 gallon.	Use 2 oz. to 1 gallon.

Obtainable in 20 different odors:

American Thistle	Geranium	Lily	Pine Forest
Apple Blossom	Honeysuckle	Mint	Rose
Bouquet	Jasmine	Narcissus	Trefle
Carnation	Lavender	New Mown Hay	Violet
Chypre	Lilac	Orange Blossom	Wild Flowers

MEMBER NATIONAL ASSN. INSECTICIDE AND DISINFECTANT MFRS. INC. 1914 INC.

P. R. DREYER INC.

12 E. 12th Street New York

"It's the Odor that Sells the Product"

Legislation Affecting Insecticide and Disinfectant Makers

Report of the Legislative Committee*

By JOHN H. WRIGHT, Chairman

IN my report as Secretary last December I called attention to the fact that in addition to the Federal Congress, forty-four State Legislatures would soon be in session and that there would, undoubtedly, be a flood of legislative proposals of direct and vital interest to the members of this Association. I also recommended the appointment of a Legislative Committee to consider such proposals and act for the Association. If I had had the faintest realization of the real accuracy of the prophecy made at that time, I would never have agreed to assume the responsibility of the chairmanship of such a committee. It is no exaggeration to state that more than fifty per cent of my personal time this year has been devoted to these legislative matters, this in spite of the fact that the other members of the Legislative Committee have done yeoman service and have given up a surprising amount of their own time to help the cause along.

Early in the work it became apparent that even with our best efforts it would be impossible for us to give consideration to a great mass of legislation of vital importance to all industry but not specifically relating to the products manufactured by our members. Many important tax bills, both Federal and State, have been proposed, and some have passed. Labor bills, patent and trademark regulations in various States, and many others might well have been analyzed and reported to the members. Those of you, however, who have read the numerous legislative bulletins will realize that this was entirely impossible.

As you know, our principal source of legislative information is from our subscription to the legislative service of The Proprietary Association. This has been invaluable but, unfortunately, it does not analyze legislation from the standpoint of the insecticide and disinfectant manufacturer. During the first quarter of the year, literally thousands of new bills and amendments came to my desk. It was necessary to segregate those affecting the products of this industry, read them, make a careful analysis and supply copies to all members of the Legislative Committee. If it had not been for the untiring and efficient work of the assistant secretary, Mrs. Sullivan, we would have found ourselves in a hopeless situation. While I realize fully that much has been left undone, I do feel that the efforts of your committee along these lines have been worth while and that much of value has been accomplished for the good of the membership.

A Legislative Committee, or a secretary, may study legislation and call the attention of the membership to the manner in which it affects the members. We have done our best to keep you informed of legislative proposals affecting your interests. This, however, is valueless, unless you, yourselves, take an active interest and play your part in making the opposition effective.

The most effective way of combating adverse legislation is through a mass of protests, particularly when coming from men of prominence in the legislator's home district, possibly even known to him personally. Some members have responded to our bulletins to the fullest extent and that, I am sure, has been an important factor in preventing the enactment of several very objectionable bills. However, if I can judge from the replies received there are still many who fail to take definite action, even on the most urgent matters. I cannot impress upon you too strongly the importance of having every member's active cooperation and support if the preliminary work of the committee is to be fully effective.

I am firmly convinced that concerted action is the only way of defeating bad legislation. It is only in rare instances that a manufacturer can obtain an amendment specifically exempting his particular type of product. If a bill is bad, it should be defeated in toto and the efforts of individuals should be devoted to that end rather than to attempting to exempt their own special products.

One of the most important phases of legislative work lies in cooperation with our sister associations. In many cases, it is possible to throw the entire weight of a number of large and influential associations against a particular bill in such a way as to make its defeat absolutely certain where the efforts of a few individuals, or a single association, to obtain specific amendments, would be hopeless. I wish at this time to express my sincere appreciation of the cooperation and support rendered us by The Proprietary Association, The Manufacturing Chemists' Association and several others. Personal contacts with the executive officers of many of these groups have been most helpful.

Federal Food and Drug Bill

It would probably require an entire session to give you a detailed report covering all of the legislative proposals which have been considered by your committee. It is my purpose, however, at this time, to give you only a brief summary covering the most important points.

Of first importance, of course, is the Copeland Food, Drug & Cosmetic Bill, which as you already know was passed by the Senate May 28th. You are familiar with the very unsatisfactory provisions of the original draft, and with the fact that the bill was withdrawn from discussion and placed back on the calendar of the Senate, after the passage of Senator Bailey's amendments affecting multiple seizures. In its present form the bill has been amended in many important details. I believe that it represents a reasonably satisfactory conclusion of this long drawn out controversy.

I do wish to refer briefly to the provisions relating to bactericides, germicides and antiseptics. In the original Tugwell bill the paragraphs relating to these products were intolerable. In last year's bill S. 2800, and in this year's bill S. 5, they were still exceedingly bad. Soon after Congress convened last winter, it became apparent to some of us that concerted action in regard to these provisions was necessary. To this end, there was organized the so-called National Committee of Manufacturers of Antiseptics, made up of a group of the larger manufacturers of antiseptics and germicides sold for use on the human body, and including a number of members of this Association. Unfortunately for him personally, your secretary was made chairman of this committee. This, however, did result in close cooperation between this committee and our association. Literally, weeks of time have been spent on this matter, both in Washington and in New York, and I believe that a great deal of good has been

* Before the National Association of Insecticide and Disinfectant Manufacturers, Chicago, June, 1935.

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POWER – ENDURANCE – SOLUBILITY

Our Kero-Odors are compounded to give the greatest possible covering power to kerosene type fly sprays . . . They last as long as the fly-spray diluent . . . They are completely soluble in kerosene and similar petroleum derivatives.

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accomplished. Hearings were held on the Copeland bill in March and your association, together with the above committee, was represented by Dr. Samuel C. Prescott, Dean of Science of the Massachusetts Institute of Technology. Dr. Prescott presented our views relating to the provisions governing germicides, antiseptics, etc. It might be well, however, to state here that Dr. Prescott's services were without expense to this association.

The language relating to germicides and antiseptics in S. 5 as it passed the Senate is as follows:

"When construing and enforcing the provisions of this Act with respect to labeling and advertisements, the term 'antiseptic' shall be deemed to have the same meaning as the word 'germicide,' except, however, in the case of a drug purporting to be, or represented as, an antiseptic for inhibitory use as a wet dressing, ointment, dusting powder, or such other use as involves prolonged contact with the body."

The defining of an "antiseptic" as a "germicide" may be considered as taking liberties with the English language but I believe that an entirely satisfactory and workable compromise has been reached.

State Food and Drug Legislation

During the winter bills were introduced in the State Legislatures of North Dakota and California for control of the manufacture and sale of drugs and cosmetics. Both of these bills included provisions, copied almost verbatim from the Federal Food and Drug Bill S. 5, relating to germicides, disinfectants and antiseptics.

The North Dakota bill failed to pass and the Legislature is adjourned. It is, therefore, safe to assume that this bill is dead, at least until the next session of the Legislature.

California Assembly Bill 1282, which was covered by our Bulletins Nos. 10, 42 and 52 is still active; in fact, advices just received indicate it has passed the House. If you have read the bulletins relating to the Copeland Bill, you will have full appreciation of the objectionable character of the California bill in this respect. The wording is exactly the same as Paragraphs (j) and (k) of the original S. 5, the only difference being that the methods of testing antiseptics, germicides, disinfectants, etc., are to be prescribed by regulation of the California State Board of Health. You can readily imagine what a chaotic situation would result if various State Boards of Health are to be granted independent power to arbitrarily establish legal methods of testing antiseptics and germicides. If this bill is still pending, I cannot too strongly emphasize the importance of taking every step within your power to lodge protests against the passage of the bill by the California Senate.

Legislation Restricting Sales to Pharmacists

During the past two years there has developed an intensive campaign in many states, the purpose of which is to build up the sales of the retail druggist by restricting to stores employing a registered pharmacist as many drug and allied products as possible. While many of the legislative proposals are apparently aimed at restrictions in the sale of strictly medicinal products, the bills have been framed in such a way as to include disinfectants and, in many cases, household and even agricultural insecticides. Such proposals in one form or another have been under active discussion in many states. In principle they have all been alike, although different in form, and in their effect upon specific products. Your Legislative Committee has been most active in connection with the majority of these bills and we believe, in many cases, we have been instrumental in the good which has been accomplished. It would be impossible to discuss all the various proposals in detail. I would like, however, to give you a brief summary of the situation as it affects the members of this association. The following bills, many of which would have seriously restricted the sale of products manufactured by our members, have been introduced and finally defeated:

Georgia: House Bills Nos. 67, 72, and 328.
Idaho: House Bill No. 835.
Indiana: Senate Bill No. 130.
Iowa: House Bill No. 128.
Massachusetts: House Bill No. 902.
Minnesota: House Bill No. 413.
New Hampshire: House Bill No. 275.
Vermont: House Bill Nos. 160 and 161.
Wyoming: House Bill No. 175.

In spite of efforts made in opposition, restrictive bills, in more or less amended form, have passed and become law in the following States:

Arizona: House Bill No. 19.
Maryland: House Bills Nos. 142 and 144.
New York: House Bills Nos. 738 and 1106.
Oregon: Senate Bill No. 82.

I will not attempt at this time to go into the details as to the way in which these laws affect our membership. They have all been amended so many times that the exact meaning of many of them is not entirely clear. However, judging from the developments in New Jersey and Ohio, under old laws, which I will discuss later, the members of this industry may expect trouble in at least some of these States at any time.

I believe I am correct in stating that the majority of our members sell their products through retail outlets other than drug stores. These restrictive bills are, therefore, of the utmost importance. So important, in fact, that it would seem advisable to discuss one which is now pending in Florida, and which is probably one of the worst that has come to our attention. I am referring to Florida Senate Bill No. 64. This bill is completely restrictive in every sense. It is my considered opinion that if enforced it would prevent the sale in the State of Florida of disinfectants and household insecticides except by stores employing a registered pharmacist. The accuracy of this interpretation seems to be made certain by an amendment recently adopted, specifically exempting fungicides, insecticides and fertilizers in their finished form, as well as raw materials when they are used in the farming industry. This seems to make very clear the intent of the bill to cover all household products. We cannot urge you too strongly to use all the influence possible to prevent the passage of this bill in its present form. At this writing, the bill is active and while I believe it can be defeated, this can only be accomplished through the concerted efforts of all interested parties.

I cannot emphasize too strongly the importance of this type of legislation. In every State where it has been passed, without suitable amendment, you may expect trouble. In our Bulletin No. 16 we told you of activities developing in the State of Ohio under an old law, giving you a partial list of the substances and preparations, the sale of which by other than registered pharmacists, had been prohibited by the Ohio State Board of Pharmacy. Among a long list of substances was included ant powder; creolin; "Creolin Merck"; various kinds of rat poisons; sodium fluoride; formaldehyde; "Germkill"; "Hexylresorcinol Solution S.T. 37"; "Lysol"; Cresol Compound U.S.P., and pyrethrum.

One of our members has recently been advised by his dealers in New Jersey that they had been notified by inspectors of the New Jersey State Board of Pharmacy to the effect that they would be subject to a fine of $25.00 if they sold this particular manufacturers' brand of insecticide—this insecticide being a simple pyrethrum spray.

One of the most important provisions of many of this year's legislative proposals has been the granting of arbitrary power to some bureaucratic official to modify the law at his discretion, or to deny the manufacturer the right to present a defense in Court. Fortunately, insofar as we are aware, no serious bills of this kind have become law. One or two, I believe, are sufficiently interesting to be mentioned. Georgia House Bill No. 835 required all manufacturers of fungicides and insecticides, made or

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The 1935 Line of Hudson Sprayers offers you many new ideas and improvements that will help to sell your product and keep it sold. With any Hudson Sprayer your customers get the fine penetrating fog spray that combines economy of material with the utmost killing power. They make a good insecticide a better one.

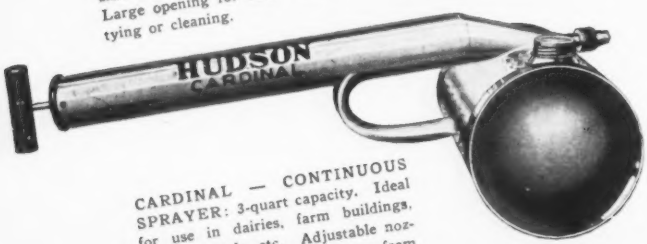
The complete Hudson line includes small household types as well as larger continuous sprayers for commercial work. Below are illustrated a few popular models.

Our experts will gladly analyze the particular problems of your product and its market with a view to recommending the type of sprayer that will be a real merchandising asset.

Write us for full information.

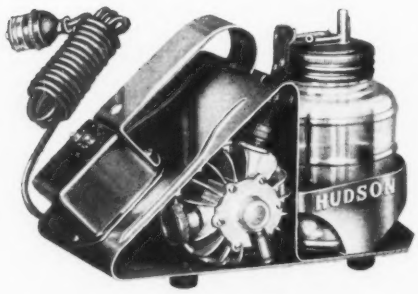
No. F10. A new type continuous sprayer for handling all oil solutions, household insecticides, disinfectants, etc. Detachable container has 18-ounce capacity. Can be supplied with several containers for convenience in using different solutions without emptying and cleaning.

No. G-3½ GLASS JAR SPRAYER: Permits clear view of contents. Large base prevents tipping; fluted sides add to strength and appearance. Large opening for easy filling, emptying or cleaning.



CARDINAL — CONTINUOUS SPRAYER: 3-quart capacity. Ideal for use in dairies, farm buildings, schools, hotels, etc. Adjustable nozzle produces any type of spray from finest fog to solid stream.

"A Hudson Sprayer for Everybody, Everywhere"



The New 1935

NO. 300

ELECTRIC SPRAYER

(New Streamlined Model)

Produces perfectly atomized mist or dry spray to penetrate every crevice of the room, yet does not leave coating of film. 1/10 HP motor operates on both AC and DC current; compressor unit built in motor. Motor time switch may be set for any period up to 30 minutes for spraying, after which motor automatically stops. A big feature for stores, food shops, etc. Neat, light, compact; simple in design; easily portable.

H. D. HUDSON MANUFACTURING COMPANY

589 E. ILLINOIS STREET :: CHICAGO, ILLINOIS

sold for use in controlling animal insect pests or diseases, to register their brands with the Commissioner of Agriculture for his approval thereof; and also required "that all manufacturers of and jobbers or dealers in insecticides and fungicides manufactured or sold for the purpose of controlling insects and diseases attacking animals or live stock" obtain a license for selling same and to file his formula with the Commissioner of Agriculture, and then provided that "the Commissioner of Agriculture may in his discretion, deny registration to any such commodity, if in his judgment and opinion the same is not efficacious or suitable for the purposes for which it is intended." It is not hard to imagine what the situation would be if one man were the sole judge of the efficacy of all the products sold for any of the above purposes.

Similar proposals were contained in Texas House Bill No. 262 as sponsored by the President of The Texas Entomological Society, Texas Agricultural Experiment Station, College Station, Texas, and which at one time seemed very likely to become law. This proposal had very careful and serious consideration on the part of your Legislative Committee and objections were found to practically every section of the bill. It provided for the registration, licensing and control of insecticides and fungicides in the State of Texas. I feel quite sure that I am not claiming too much credit for this association in stating that I believe it was solely through the cooperative efforts of certain members that this proposal was defeated. I particularly wish, at this time, to express my very sincere appreciation of the most excellent work in this connection which was done by Mr. C. L. Fardwell of McCormick & Co.

California House Bill No. 188 is a shining example of the extent to which some proposals have gone. This bill as originally drafted would have permitted the mentioning of any food, drug or cosmetic in radio broadcasting, but would have prohibited any statement to be made as to the merits of such food, drug or cosmetic! In other words, it would have been entirely impossible to make any radio claims of any kind whatsoever for your products. This bill is still pending but has been amended to prohibit any "false statements for the purpose of inducing directly or indirectly the purchase of foods, drinks, drugs, devices or cosmetic products." Some of these proposals seem absolutely silly. Even the most asinine, however, cannot be disregarded. It is only through active opposition that their passage can be prevented.

One exceeding drastic bill is now pending in Illinois—I refer to Illinois House Bill No. 818. This bill is being actively opposed from many sources but, in a situation such as this, every bit of influence is important. I cannot urge you too strongly, if final disposition has not been made before this meeting, to bring every possible influence to bear upon the Illinois Legislature. The bill contains features found in the Tugwell-Copeland Food and Drug bill. It provides that after August 1st, 1935, no person shall engage in the business of manufacturing cosmetics, medicines or drugs for sale or distribution without first having obtained a license therefor, which shall contain the applicant's name, address, place of business, a statement of the contents and ingredients, the conditions under which the product is manufactured, and the name of the brand under which the product is sold. Such license is to be an annual one, the cost of which is $2500.00. Our interpretation of Section 13 of the bill is that manufacturers outside of the State will be required to register and pay the fee of $2500 before their products can be sold within the State of Illinois.

There is also pending in Florida, Senate Bill No. 589,* which would classify as dangerous to health any product bearing any recommendation for use in connection with the treatment and prevention of disease, and which contains any quantity of any poison regardless of the toxicity of the complete formula, and requires that the package bear a poison label in red. Prompt action is likewise advisable in regard to this proposal.

I believe the only members of this organization who have the slightest appreciation of the amount of work involved are the members of the Legislative Committee. Many times it has been discouraging and I realize, only too well, that much has been left undone. I do feel, however, that the effort has been worth while and that with the cooperation of many of the members a great deal has been accomplished. There is one thought which I wish to leave with you, and that is: that the legislation which we have been discussing is **legislation affecting your own business.** You have no right to sit back and expect the other fellow to pull your own chestnuts out of the fire. In those cases where we have had cooperation it has been wholehearted and effective, but I feel there are many of our members who have been indifferent when concerted action was required. If activities in regard to legislation are to be effective in the future, it is essential that you study the information which is sent to you, analyze it carefully, and act promptly as soon as you are notified that the occasion demands it.

* Florida Senate Bill No. 64 killed in Legislature June 8.

* Florida Senate Bill No. 589 killed in Legislature June 8.

Report of the Committee on STANDARDIZATION of DISINFECTANTS

By BURTON G. PHILBRICK, Chairman

THE determination of the B. typhosus phenol coefficient of disinfectants has become practically standardized by the general adoption and use of one method, that of the Food and Drug Administration, or the F.D.A. method. Continued use of this method has failed to disclose any weakness in the procedure which requiries attention, and no collaborative work has seemed necessary. It is not to be understood that the method is perfect, but it serves its purpose well.

Your committee would take the opportunity here to state its belief that the disinfectant manufacturer should not limit his knowledge of his product to its B. typhosus coefficient. The committee will make more definite suggestions along this line in its December report.

L. M. Glover Co., Cambridge, Mass., dealer in janitors' supplies, has entered into a stipulation with the Federal Trade Commission to cease and desist from use of the phrase "Rubber-Var" in the sale of its products so as not to mislead buyers into believing that the preparation so designated is the one known as "Rubber-Var" and manufactured by Continental Car-Na-Var Corporation, of Brazil, Ind. According to the stipulation, the Glover company caused certain of its products to be invoiced and billed as "Rubber-Var," when in fact the product so listed was not the "Rubber-Var" produced by the Continental company.

A simple suspension of finely ground derris root in water appears to be one of the best insecticides ever tested for the control of the Mexican bean beetle. Neale F. Foward, Loyd W. Brannon and Horatio C. Mason. *J. Econ. Entomology* 28, 444-8 (1935).

Saunders Chemical Corporation, which makes "Flight," a remedy for athlete's foot, has appointed Jimm Daugherty, Inc., St. Louis agency, as advertising counsel. A test campaign using newspapers and outdoor advertising is running in St. Louis.

FOR YOUR *Paradichlorbenzene* AND *Naphthalene* REQUEST SAMPLES OF

COLOROMES

COLOROMES have been especially developed by Felton Chemical Co. to perfume and color Paradichlor-Benzene and Naphthalene blocks or crystals in one single, simple operation.

Extensive research has resulted in the formulation of products which completely neutralize the inherently disagreeable odor of Para and Naphthalene and leave only a pleasant fragrance which persists until the last trace of the block of crystal has disappeared.

COLOROMES are available in any of the popular odors and with any desired color, of exceptional fastness.

Coloromes are also supplied without color.

Priced to meet the demands of present day competition.

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AROMATIC CHEMICALS — NATURAL ISOLATES — PERFUME OILS — ARTIFICIAL FLOWER AND FLAVOR OILS

Stocks carried in following cities:

Boston, Mass.	Philadelphia, Pa.	Sandusky, Ohio	Chicago, Ill.	St. Louis, Mo.	New Orleans, La.	Los Angeles, Calif.
80 Boylston St.	200 So. 12th St.	1408 W. Market St.	1200 N. Ashland Ave.	245 Union Blvd.	Balter Bldg.	515 So. Fairfax Ave.

Seen at the 21st Summer Meeting of the National Association of Insecticide & Disinfectant Manufacturers, Chicago, June 10 and 11.

Imperial Sanitator

THE SPRAYIT
New Imperial
SANITATORS

Still Low in Price — Many New Improvements

An Entirely New Atomizing Principle

Adjustable Extension Nozzle

Variable Volume Control

New Automatic Time Switch

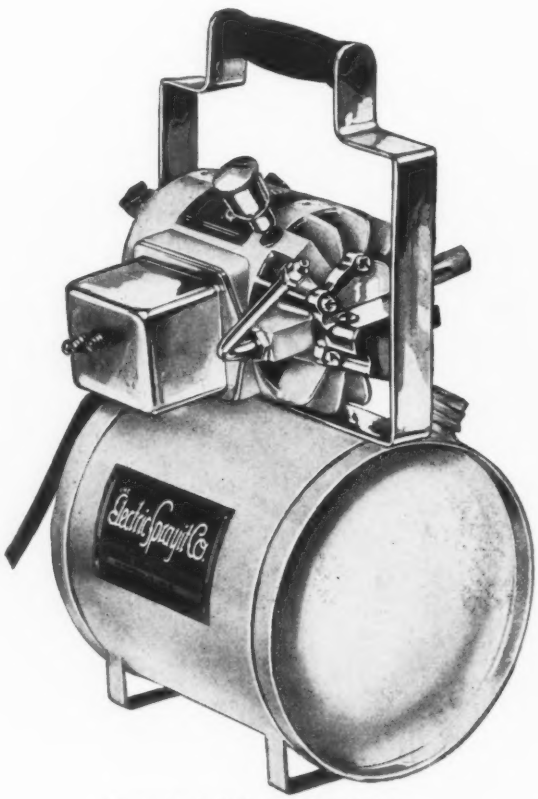
THE SPRAYIT IMPERIAL SANITATOR is furnished in standard models either with or without Time Switch; ⅛ H.P. 110 Volt Universal Motor that operates on AC or DC Current; 26 oz. glass insecticide jar; 8 feet of oil resisting rubber covered cord; shipping weight 12 lbs. Time switch is adjustable from 1 to 45 minutes. ALL MODELS ARE FURNISHED WITH ADJUSTABLE EXTENSION NOZZLE, AND VARIABLE VOLUME CONTROL. There is a slight extra charge for voltages other than 110 Volts.

These units are suitable for use in areas up to 100,000 cubic feet in restaurants, food stores, hotels, apartments, hospitals, schools, institutions, theaters, office buildings, mills, warehouses, etc.

THE SPRAYIT
Imperial Deluxe
SANITATOR

THE SPRAYIT IMPERIAL DELUXE SANITATOR represents the very last word in spraying equipment of this type. It is a beautiful piece of machinery, a precision instrument from every angle, incorporating every advancement desired by the insecticide industry.

THE SPRAYIT IMPERIAL DELUXE SANITATOR incorporates all the excellent new features of the IMPERIAL SANITATOR with a greatly increased capacity and beautiful finishing. In addition to this, the large filler cap enables the operator to refill the unit without removing the container, thereby saving a great deal of time and energy. THE IMPERIAL DELUXE SANITATOR is furnished complete with extension nozzle, variable volume control, Time Switch, 3-quart plated brass container with extra large filler cap, all highly polished and plated.



Imperial Deluxe Sanitator

THE ELECTRIC SPRAYIT COMPANY
220 N. BROADWAY MILWAUKEE, WIS.

How To Use A Liquid Insecticide

By Dr. ALFRED WEED, Chairman*
Insecticide Standardization Committee

LIQUID household insecticides are not products which will perform miracles. They are designed to do a certain piece of work—the killing of insects—and if this service is to be accomplished, directions for using sprays should be adhered to carefully. These directions are based not only on laboratory experiments, but also upon practical experience.

Use a good sprayer. The importance of the sprayer, if satisfactory results are to be accomplished with one of these liquid sprays, cannot be overstressed. A good sprayer for liquid insecticide will deliver a mist or fog free from large droplets of spray.

To kill flying insects (flies, mosquitoes and gnats) close doors and windows, directing the spray obliquely up toward the ceiling. The room should be filled with mist, and if specific directions are given for a certain number of strokes of the sprayer, follow these, as the manufacturer has calculated the deliveries of spray and the number of pumps suggested will insure the use of sufficient material to accomplish satisfactory results. Leave the room closed for ten to twenty minutes, and then sweep up the dead or stupefied insects and destroy them. A liberal blast or two of the spray directed behind or beneath pieces of furniture will be found helpful in bringing mosquitoes from concealment, where they can be sprayed directly. Occasional flies or mosquitoes can be killed by catching them in a blast of the spray as it leaves the sprayer. The control of flies and mosquitoes can be materially aided by spraying their breeding places, such as garbage cans, pools of stagnant water, rain barrels and water spouts.

To control roaches, or water bugs, and silverfish, the spray should be directed beneath and behind the refrigerator, under the sink, in all cabinets and around pantry shelving and into all cracks and crevices about moulding and wood trim, which may serve as places of concealment. Particular attention should be paid to all warm, moist places about plumbing and heating installation.

For ants, use the spray so as to wet as many of them as possible. Pay particular attention to nests or runways.

For bedbugs, spray springs and mattresses thoroughly after the bed has been dismantled. Pay special attention to all cracks and crevices, tufts and seams on mattresses, loose wall paper and loose moulding. Bed clothing should be cleaned and aired. The spray kills the eggs that can be wetted.

For clothes moths, carpet beetles and fleas, take special precautions to see that cracks in floors and openings below baseboards are thoroughly wetted with the spray liquid. Wool lint and organic matter accumulating in these out-of-the-way places will serve as breeding material for these pests. Clothing to be stored should be cleaned, and aired and sprayed carefully from a distance of two feet, taking care to wet seams and folds. Chests in which woolens are to be stored should be thoroughly sprayed before being filled with clothing. Closets should be filled with a dense mist of spray vapor at least once a month.

Again remember that instructions on these products give definite directions as to how their user will derive the most satisfaction from them. The results obtained are dependent upon their thorough and proper use. A thorough, well-timed spraying will give real satisfaction, while haphazard spraying is of little value. These sprays are contact insecticides primarily, and virtually all household insects which can be wetted with such materials are killed. This applies not only to the adult insects, but to the immature forms. Reinfestation of many of these insects will occur, because of the impossibility of reaching some of the immature stages. Therefore, frequent follow-up treatments at ten-day to two-week intervals are necessary. A good sprayer, a good liquid, and a thorough application mean real satisfaction.

Problems in Sanitary Products

Report of Sanitary Specialties Committee*

By LEONARD B. SCHWARCZ, Chairman

QUITE a few members of our association are engaged in the full sanitary specialties line, which includes many other items besides disinfectants and insecticides. To mention a few: floor waxes, mopping varnish and other floor treatments, deodorizing cakes, metal polishes, green soaps, furniture polishes, fabric cleaners, waterless cleaners, spot removers, etc., etc. During the past few years, due to competitive conditions, general slackening in business and other reasons, a number of our members have been devoting more attention to these specialty products and increasing their lines.

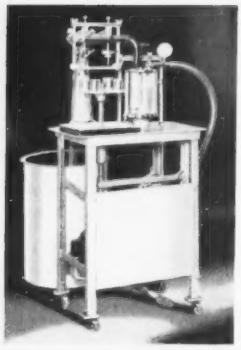
The sanitary specialties business is a peculiar one in certain respects. For example, a check-up on ten different concerns selling a liquid floor soap revealed the following interesting facts, i.e., that five reputable manufacturers selling direct to the consuming trade had an average price thatw as very nearly double the average price of five jobbers, such as janitor supply houses, etc.

It is a well known fact that manufacturers selling direct to buildings or institutions are in general the ones who actually do the missionary work on floor soaps and when such products can be bought from a jobber for approximately half the price, there certainly seems to be something wrong somewhere. More or less highly variable price ranges apply to other sanitary specialties. This is but one of the matters that could be discussed to mutual advantage. There are other subjects that are of keen interest to many of us. To mention a few:

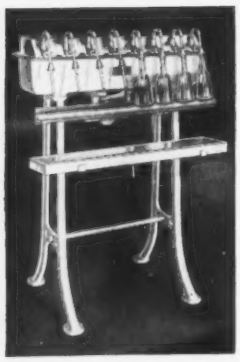
Minimum standards for such products as: rubless waxes, floor finishes, metal polishes, oil soaps, etc. One of the members of the committee has already worked out a satisfactory method for the comparison of luster and lasting qualities of rubless waxes.

Manufacturers who sell to the jobbing trade in the past have been criticized by concerns who are selling direct to the consumer, for putting their salesmen in busines by quoting wholesale prices to anyone who inquired.

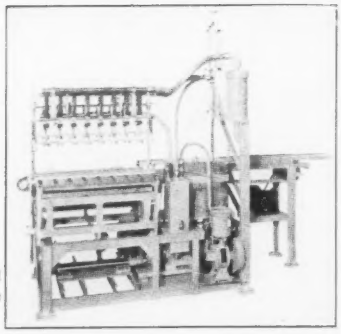
* Before the Natl. Assn. of Insecticide & Disinfectant Mfrs., Chicago, June, 1935.



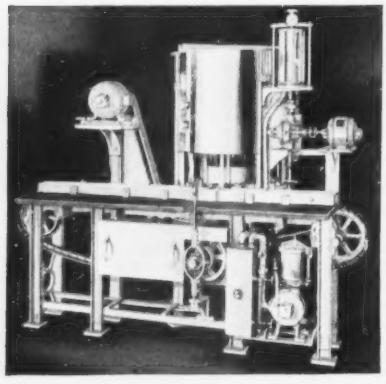
U. S. Hand Vacuum Filler



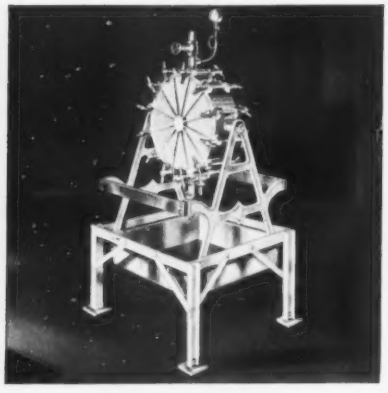
U. S. Siphon Filler



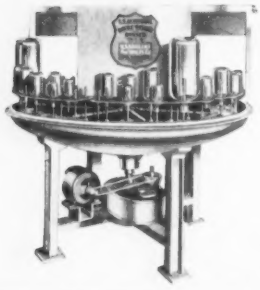
U. S. Dual Head Vacuum Bottle Cleaner & Filler



U. S. Rotary Filler



U. S. Drum Disc Filter



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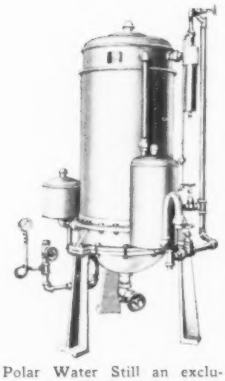

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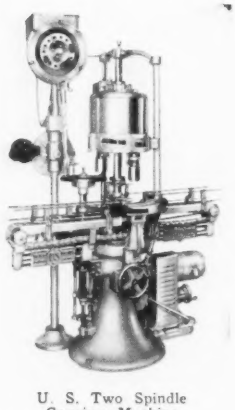

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There have been instances where salesmen of manufacturers selling direct have spent a few dollars and had stationery printed and sent in inquiries asking for wholesale prices, which they were succesful in obtaining. Then when they noted the margin between the wholesale and resale price, many of them were tempted to go in business for themselves, often with far too little capital. And by flagrant price cutting were able to make it very uncomfortable for the established concerns in the field.

This is a serious question,—how can manufacturers who sell to jobbers control the quoting of prices to persons or concerns who are not really entitled to receive them? This point should be given due consideration.

Arrangement for a central clearing bureau to disseminate information on salesmen would be helpful. For instance it has often occurred that a dishonest salesman leaves or is discharged by a concern, but has no trouble in getting a job with first one company and then another in the same line, to his own advantage, but to the sorrow of the concerns involved. Compensation of salesmen is being reported by a separate committee.

The Association allows an opportunity for members to meet twice a year and heretofore any problems that have arisen in regard to these sanitary specialties as outlined above were sometimes talked over by small groups outside of the regular meeting. Discussions usually started when several members met in the lobby, or the restaurant, or even occasionally at the open meetings, but then these private conversations in a low tone had the tendency to annoy the speaker on the platform. At best these haphazard methods were only partially satisfactory, inasmuch as no concerted effort was made to get all of the interested parties together.

While it is realized that the main interest of the Association is in insecticides and disinfectants, perhaps cognizance should be taken of the fact that the character of the business of many of us has altered and expanded into other fields. Therefore, this Committee suggests that sufficient time be allotted, by the Association to discuss some of these sanitary specialty matters at regular meetings. By doing so it is even possible that the membership of the Association may be increased thereby. Perhaps the time allocated to matters of a technical or theoretical nature could be limited and more advantageously utilized on discussions pertaining to sanitary specialties. On the other hand it may be better to hold one or two extra sessions after the regular meetings, which could be attended by those specifically interested in these items. The result would probably be mutually beneficial to those concerned and tend to correct certain abuses that have arisen and also help place the busines on a higher plane.

FUTURE TO BRING NEW INSECTICIDES

At present inorganic insecticides, especially arsenicals, dominate the market. In the future the various inorganic compounds will be largely replaced by organic products. The reason for this is that the public is becoming increasingly conscious of the menace to health resulting from the presence of spray residues of lead arsenate, cryolite, etc., on fruits and vegetables. Pure food and public health officials have ruled against the marketing of fruits and vegetables bearing excessive quantities of arsenic, lead or fluorine. The prospects of finding insecticides of low toxicity to man are much better in the organic than in the inorganic field.

Although soaps made from fish oils, whale oil, or other animal oils and fats are useful in killing insects, soaps made from vegetable oils are in general of equal value. Vegetable products offer great possibilities for use as insecticides either directly or as the starting point for the preparation of synthetic compounds. Many of our most potent and widely used insecticides are derived from plants such as tobacco, pyrethrum, derris, cube, hellebore, larkspur, quassia, red cedar, and numerous plants from which essential oils are obtained. Petroleum hydrocarbons, derived from plants of earlier geological times, are employed extensively in the form of aqueous emulsions for spraying trees. Of the thousands of known plants only a few have been carefully tested for their insecticidal value. Many of the insecticides of the future will undoubtedly be derived from plants. The finding of rotenone in the devil's-shoestring calls attention to the possibilities of finding valuable insecticides in the most common weeds.

The extreme potency of some of these plant insecticides is illustrated in the case of rotenone. It is 30 times as toxic as lead arsenate when fed to silkworms and 15 times as toxic as nicotine when sprayed on bean aphids. On the other hand, its toxicity toward mammals when taken by mouth is vastly less than that of these materials. The acute toxic dose of rotenone to dogs is more than 7 grains per pound or 1 gram per kilogram of body weight. The chief value of rotenone is due to this differential action in its toxicity. The chances of finding other substances with these characteristics are much better among organic compounds than among inorganic materials.

At present only a few synthetic organic compounds, or organic compounds derived from natural products by distillation or other simple treatment, are used as insecticides. If the radicals in organic compounds that are responsible for toxicity to insects were known, the task of synthesizing the ideal insecticide would be greatly simplified. As yet, little is known concerning toxophoric groups. There is no reason why an organic compound must have a highly complex structure like rotenone and the pyrethrins, in order to possess insecticidal value. The esters of formic acid and of monochloroacetic acid are among the simplest organic compounds, yet in the vapor phase they are very toxic to insect life.

It is necessary that much pharmacological work be done before progress can be made in the development of new organic insecticides. Nothing is known concerning the possible poisoning effect of whole series of organic compounds. An advantage that organic insecticides have over inorganic is their instability when exposed to light and air in thin films such as those formed by spray residues. Many organic compounds such as nicotine, rotenone and the pyrethrins lose their toxicity under outdoor conditions. While this loss in toxicity detracts from their insecticidal value, it also reduces to a negligible quantity the health hazard of the spray residue to the consumer. It should be remembered that organic insecticides are more or less specific. A compound that is deadly to one insect may be harmless to another. Organic chemists need not fear the exhaustion of this field of research by the discovery of a few potent products. R. C. Roark. *Ind. Eng. Chem.* **27,** 530-2 (1935).

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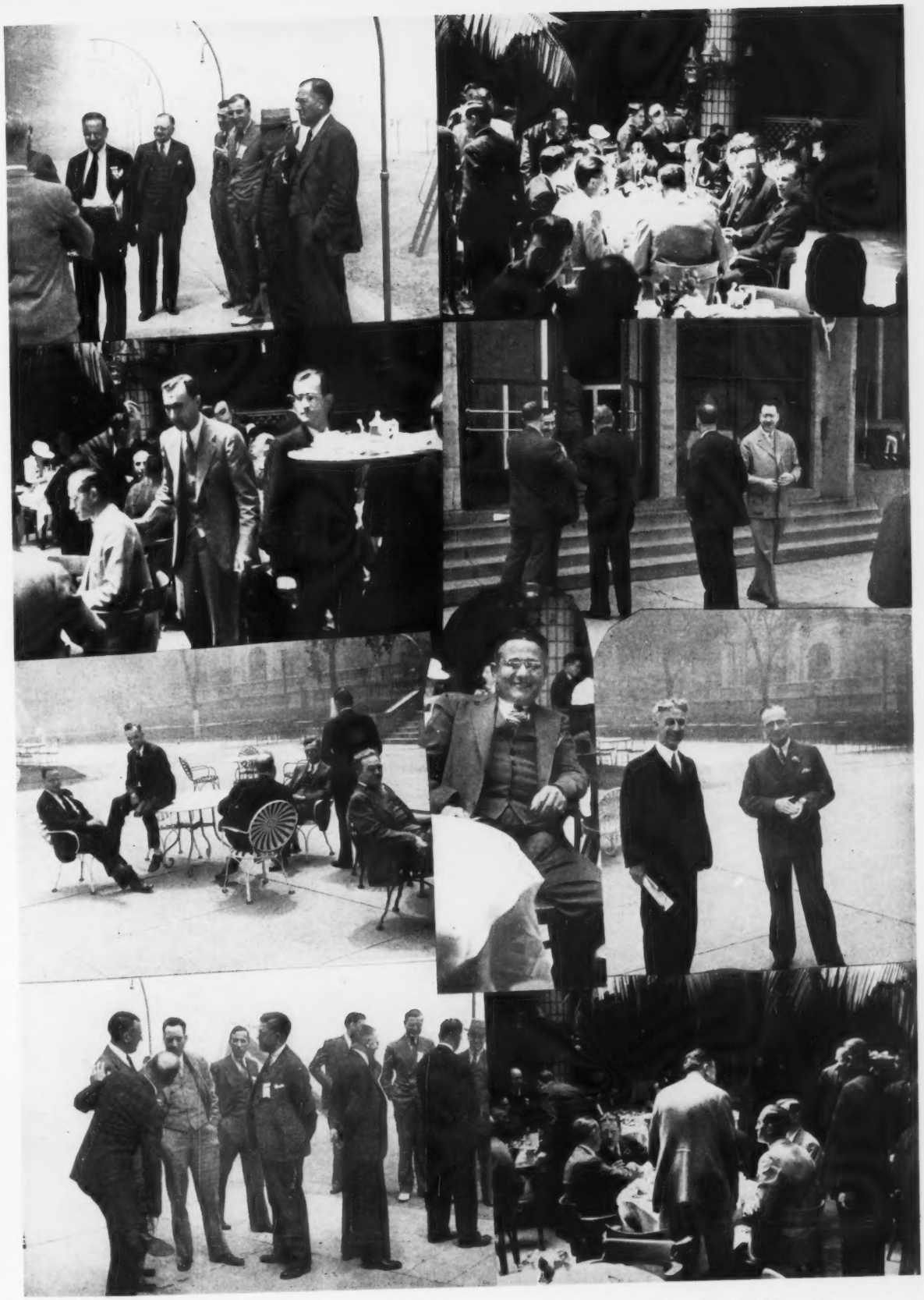

In and about the Edgewater Beach Hotel at the Insecticide and Disinfectant Meeting.

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Causes and Preventive Measures for 'Athlete's Foot'

By W. A. HADFIELD*
General Laboratories, Inc.

ATHLETE'S FOOT is the term used for infections such as ringworm, toe itch, fungus foot, papilloma and similar conditions caused by fungi of the species Trichophyton. The medical profession recognizes that "Athlete's Foot" is one of the most infectious diseases. It is characterized by a slight peeling of the skin between the toes or fingers, the formation of water-like blisters with resulting itching, burning, cracking of the skin, inflammation and discharge. It is frequently disseminated to other parts of the body. Recurrences are extremely common under conditions of increased heat and moisture.

Since the World War, "Athlete's Foot" has been increasing rapidly until today it has almost reached epidemic proportions. This increasing incidence is due to the popularity of sports demanding common locker rooms and shower baths. It is estimated that 90 per cent of all college students indulging in athletics, 50 per cent of the general adult population and 25 to 50 per cent of children of high school age have this disease. Thus, the prevention of the disease is one of major importance.

The fungi causing this type of infection are found in the epidermis and the hair growing on infected areas of the body. Skin scales and hair are easily separated from these lesions and such fungus bearing material is especially apt to be dislodged in dressing rooms and in showers. The high incidence of "Athlete's Foot" among persons using common locker and shower rooms is certainly strong evidence that this is a common method of spread.

In 1931, Osborne and Hitchcock[1] tested the fungicidal properties of sodium hypochlorite on five common types of fungi found on the feet of persons having ringworm and reported on the use of this chemical as a prophylactic agent in the Buffalo high schools. They report the following results: Trichophyton interdigitale, Trichophyton gypseum and Monilia pinoyi were killed in 15 seconds by 0.15 per cent sodium hypochlorite; Blastomycoides immitis required 0.4 per cent sodium hypochlorite to kill in 15 seconds; and Trichophyton rosaceum required 0.5 per cent of this chemical to kill in 15 seconds. From these results Osborne and Hitchcock concluded that fresh moist deposits of ringworm organisms on the feet should be killed with 0.5 per cent sodium hypochlorite provided the organisms have not penetrated to the deeper cells in the horny layer of the epidermis.

Klarmann and his co-workers[2] investigated the fungicidal action of homologous derivatives of orthochlorophenol and the orthoalkyl derivatives of parachlorophenol using Trichophyton rosaceum and Monilia albicans. Their results show that these compounds have extremely high fungicidal properties killing these organisms in dilutions ranging from 1-200 to 1-60,000 in 10 minutes exposure.

Using the method of Osborne and Hitchcock, it was found in our laboratories that a concentration of 0.035 per cent sodium hypochlorite, a 1-100 dilution of B-K Liquid, destroyed Trichophyton rosaceum in less than 30 seconds.

Bonar and Dreyer[3] found that Trichophyton interdigitale grew readily on wood, cement and brick which were wet and showed an accumulation of algal and bacterial slime. Cracks and fissures in floors often retained sufficient moisture to sustain the growth of the fungus. Once the floors are infected, the organisms remain viable over rather long periods of ordinary drying. They concluded from their data that the possible prevention of infection is the elimination of conditions which will permit the growth of fungis on floors. Hosing floors with water is not sufficient to remove such material because of the tenacity with which it remains on floors, especially under mats. It is recommended when floors are covered with slime that they be first scrubbed with warm solution of soap or washing powder before spraying with a solution of calcium or sodium hypochlorite.

These workers studied the action of copper sulphate and sodium hypochlorite upon slime-covered blocks infected with Trichophyton interdigitale and found that a 1 per cent sodium hypochlorite solution must remain in contact with the organism for a considerable period of time to be effective, while a 1 per cent copper sulphate was entirely ineffective in 24 hours.

Because of the nature of the disease it is evident that clothing, towels and bath mats used by individuals suffering from this type of infection may harbor the organisms, thus transmitting the disease. Bonar and Dreyer from their work on the thermal death point, and the action of soap solutions, concluded that the standard laundry practice for white cotton fabrics is sufficient to kill the fungus, while the methods employed for washing woolens and colored fabrics is of doubtful value. Observations indicate that when woolens, silks and shoes are exposed to sunlight on a number of successive days, that the organisms are destroyed and there are no longer a means of the transmission of the infection.

Prophylaxis

Osborne and Hitchcock[1] were the first to report the use of sodium hypochlorite as a prophylactic for the prevention of the disease. It was employed in concentrations ranging from 0.5 to 1 per cent in the Buffalo high schools. The method they used was to place a rubber pan on the floor of corridor so that all students leaving the shower room were required to walk through the solution. Later a "well" was built in the tile floor the entire width of the corridor through which the pupils passed on their way from the dressing room to the showers and again upon their return. Before the establishment of the preventive measure the director of physical education of the Buffalo high schools reported that many new cases of ringworm of the feet appeared. During a school year of this preventive treatment no new cases of this disease were reported.

The Committee on Bathing Places of the American Public Health Association[4] has reported that 0.3 to 0.6 per cent of available chlorine has been found valuable for washing floors, walks, etc., and as a foot bath for the prevention of ringworm of the feet.

Another chemical, sodium thiosulphate, has been reported to be effective as a preventive[5]. This was employed in concentrations ranging from 10 to 15 per cent. However in one large city poor results were obtained from its use as a foot bath[4]. The objection to the use of this chemical is based upon the fact that it will reduce avail-

* Before the National Association of Insecticide and Disinfectant Manufacturers, Chicago, June, 1935.

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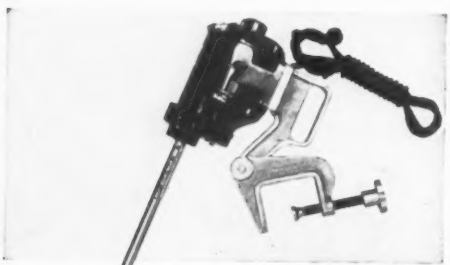

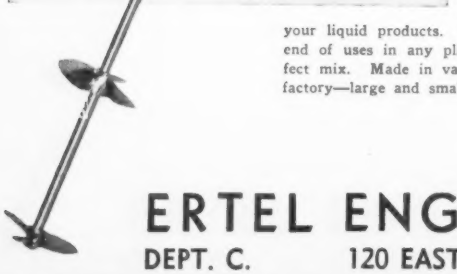

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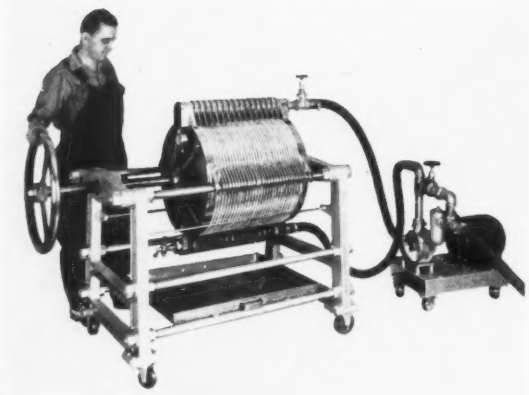

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able chlorine in the pool if bathers use the foot bath before entering.

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References:

[1] Osborne, E. D. and Hitchcock, B. S., *Jour. Am. Med. Assoc.*, 97, 7, 453, Aug. 15, 1931.
[2] Klarmann, E., Shternov, V. A. and Gates, L. W., *Jour. Lab. and Clinical Medicine* 19, 8, 835, May 1934 and 20, 1, 40 October, 1934.
[3] Bonar L., and Dreyer, A. D., *Am. Jour. Pub. Health*, 22, 9, 909—Sept., 1932.
[4] *American Public Health Association Year Book* 1932-33, Page 41.
[5] Gould, W. L., *Jour. Am. Med. Assoc.*, 96, 1300—April 18, 1931.

DR. TATTERSFIELD GUEST AT LUNCHEON

Dr. F. Tattersfield, D.Sc., (London) F.I.C., who is visiting the United States as the guest of S. B. Penick & Co., New York, was tendered at luncheon at the Chemists' Club, New York, May 28.

Dr. Tattersfield is head of the Department of Insecticides and Fungicides, Rothamsted Experimental Station, in England. Since being appointed to that position, in 1918, he has conducted researches in the fields of pyrethrum flowers and derris root, in conjunction with others in the British Ministry of Agriculture. The development of the Tattersfield acid method for the determination of Pyrethrins 1 and 2 in pyrethrum flowers has been his most notable contribution in this field. At the present time he and Dr. J. T. Martin are conducting experiments on derris root. They expect to publish a paper in the near future dealing with a method for evaluating this product.

Dr. Thomas Lewis, chief of S. B. Penick & Co.'s technical staff, introduced Dr. Tattersfield, who spoke of several interesting developments in connection with his work. Dr. Harvey A. Seil, of Seil, Putt & Rusby, consulting chemists, then paid a tribute to Dr. Tattersfield's many contributions to the development of pyrethrum and derris products. Others attending the luncheon included: Dr. Albert Hartzell, Dr. F. Wilcoxson, and Dr. S. E. McCallan, Boyce Thompson Institute; Dr. C. C. Hamilton, Rutgers University; Dr. S. E. Cairncross, Bristol Myers Co.; Dr. E. B. Hunn, Dr. F. C. Nelson, and H. Seeland, Stanco, Inc.; N. K. Concannon, N. Y. Society of Exterminators & Fumigators; J. T. Kilpatrick, Socony Vacuum Oil Co.; R. R. Bell, Anglo-Mexican Petroleum Co.; E. H. Watson, and John

F. Ames, American British Chemical Supplies; A. H. Henninger, General Chemical Co.; Dr. J. H. Lawton, Dethol Manufacturing Co.; J. A. Lunn, and R. L. Watowihd, Warner-Quinlan Co.; Dr. Eric Meyer, L. Sonneborn Sons, D. C. Connolly, Ansbacher-Siegle Corp.; Friar Thompson, Jr., Hercules Powder Co.; C. Leith Speiden, Innis Speiden Co.; Wm. Anderson, Dougherty Manufacturing Co.; B. R. Elk, B. R. Elk & Co., and S. B. Penick, Sr., S. B. Penick, Jr., S. P. Nickells, H. Noble, and F. Rauch, S. B. Penick & Co.

N. Y. EXTERMINATORS MEET JUNE 20

The June meeting of the New York Society of Exterminators and Fumigators will be held Thursday, June 20, at the Building Trades Employers' Association, 2 Park Ave., New York. Dinner at 6:30 will be followed by a program of talks on termite extermination. George Saunders, Saunders Exterminating Co., and F. Kenneth Harder, Harder Exterminating Co., will give short talks on this problem, followed by an open forum in which Dr. F. C. Cislak, Reilly Tar & Chemical Co., of Indianapolis, will direct the discussion. The May meeting was held at the same place. Among the speakers and their topics were the following: Sidney Apfelbaum, General Exterminating Co., "Our Trade Association"; N. K. Concannon, "The Law Governing Exterminating and Fumigating Work"; Wm. O. Buettner, Oscar G. Buettner & Son, Inc., "Price Cutting—Its Fallacy"; C. H. W. Hasselriis, Ratin Laboratory, "Rat Poison"; and Henry W. Mahler, Mahler Exterminating Co., "Fumigation".

A daughter, Ann Gordon Baird, arrived at the home of Gordon and Mrs. Gordon Baird last month. Gordon Baird has been associated with his father in Baird & McGuire, Inc., Holbrook, Mass., for several years. This makes Campbell Baird a grandfather for the first time, and we understand that he is just as proud as his son over the new arrival.

A firm in Vienna, Austria, is interested in purchase of polishing paste for use on chrome and stainless steel. Interested American firms may communicate through the U. S. Bureau of Foreign & Domestic Commerce, mentioning inquiry number 8900.

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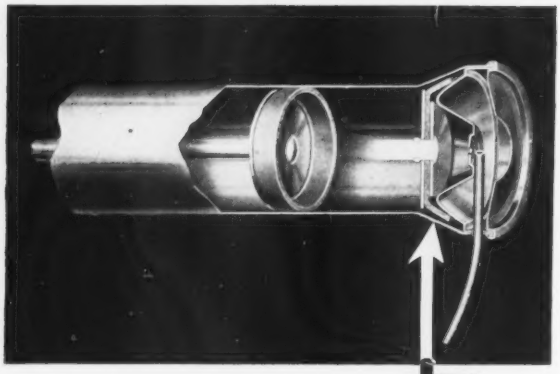

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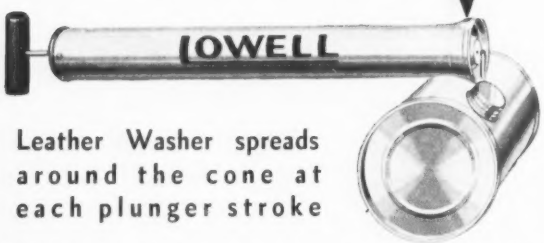

Leather Washer spreads around the cone at each plunger stroke

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We have a considerable amount of information dealing with this important insecticide raw material. Why not ask us for complete details?

Thallium Sulfate is packed in 1 and 2½ lb. bottles and cans, and in 50 lb. boxes. Other Thallium salts are also available.

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Pine Oil Disinfectants

A Discussion of Steam-Distilled Pine Oil as a Disinfectant with Relation to its Germicidal Efficiency

By G. F. HOGG and B. H. LITTLE*

Hercules Powder Co.

THE literature contains an abundance of reports of work done on coal tars and coal tar disinfectants, but there appears to be comparatively few reports of any work done on steam-distilled pine oils and steam-distilled pine oil disinfectants. Your Scientific Committee have asked the Hercules Powder Company to present this paper, summarizing some of the literature on steam-distilled pine oil, dealing with its use in disinfectants and also to present other available unpublished information.

For disinfecting purposes, the variance in the chemical composition of different types of steam-distilled pine oils influences their efficiency. Changes in chemical composition appear to affect: (1) Phenol Coefficient; (2) Emulsification and (3) Reduction of surface tension. We will discuss each one of these factors separately.

Chemical Composition

To thoroughly understand and appreciate steam-distilled pine oil as a disinfectant and to discuss its functions and qualifications, we must first have a thorough knowledge of the properties and components. Crude steam-distilled pine oil, as obtained by the steam and solvent process from waste pine wood, is a complex mixture of liquid terpenes comprising hydrocarbons, alcohols, ketones, aldehydes, phenols, ethers and polymers. There are no Government specifications existing for steam-distilled pine oil (excepting a Navy Specification for pine oil for ship paints). The original definition of steam-distilled pine oil defines it as that fraction of pine tree oleoresin obtain by the steam and solvent process distilling between turpentine and rosin. Such a fraction would be a very crude pine oil, yet because of the non-existence of any Government specification, it could be labelled and sold inter-state as steam-distilled pine oil and, therefore, would be confused with many high-grade pine oils on the market today.

Let us inspect that fraction of pine tree oleoresin obtained by the steam and solvent process, distilling between turpentine and rosin. The boiling range of steam-distilled turpentine is about 155°C. to 165°C., so that the initial boiling point of a crude steam-distilled pine oil, then, could be from 165°C. to 170°C. Rosin does not distill at atmospheric pressure below 350°C., so a fraction which is erroneously referred to as steam-distilled pine oil could, then, have a distillation range approximately from 170°C. to 350°C. Let us review the liquid terpenes reported to exist in oils obtained from waste pine wood by the steam and solvent process and having boiling points that would include them in a crude steam-distilled pine oil having a boiling range of 170°C. to 350°C. From the literature, we find the following components reported:

Dipentene	175°C.
Cineol	176°C.
Alpha Terpinene	179°C.
Terpinolene	183°C.
Fenchone	192°C.
Fenchyl Alcohol	202°C.
Camphor	204°C.
Dihydro Alpha Terpineol	209°C.
Borneol	212°C.
Methyl Chavicol	215°C.
Alpha Terpineol	218°C.
Anethol	233°C.
Carvacrol	236°C.
Diterpenes and Polyterpenes	From 240°C. to 350°C.

Of the liquid terpenes listed here, a few are present in only minute quantities and, therefore, for all practical disinfecting purposes, may be disregarded. These are: cineol, fenchone, methyl chavicol, anethol, and carvacrol.

A fraction having such a wide boiling range and containing so many different components can easily be split by fractional distillation into a number of separate fractions and any one of these fractions could, due to the lack of specifications, be called steam-distilled pine oil and sold as such. Herein we find the reason for the existence of so many different grades of steam-distilled pine oil on the market today at many different prices. We point out, to the manufacturers buying steam-distilled pine oil that all products labelled steam-distilled pine oil are not necessarily identical products. For example, we quote the analyses of two products, both sold commercially today as steam-distilled pine oil:

	Pine Oil A	*Pine Oil B*
Specific Gravity @ 15.5°C.	0.9340	0.9509
Refractive Index @ 20°C.	1.4831	1.4832
Unpolymerized Residue	0.4%	0.1%
Moisture	1%	0.7%
Tertiary Alcohols	47%	10%
Secondary Alcohols	18%	33%
A.S.T.M. Distillation Range		
5%	194.0°C.	212.0°C.
95%	214.5°C.	241.3°C.

It is evident from the above analyses that Pine Oil (A) and Pine Oil (B), while they are both old as steam-distilled pine oils are, in reality, two entirely different products. Pine Oil (A), as indicated by the distillation range, is taken as a fraction from the light end of the crude pine oil, whereas Pine Oil (B) is taken as a fraction from the heavy end. A further inspection of these two analyses shows that Pine Oil (A) contains 47 per cent of tertiary alcohols and 18 per cent of secondary alcohols, whereas Pine Oil (B) contains only 10 per cent of tertiary alcohols and 33 per cent of secondary alcohols. A comparison of these alcohol contents again clearly indicates that the two so-called steam-distilled Pine oils are entirely different products.

The chemical components previously mentioned as existing in the wide boiling range crude steam-distilled pine oil in large enough proportions to be of interest to us, fall in the general chemical classes as follows:

Hydrocarbons—Dipentene, Terpineolene, Alpha Terpinene
Tertiary Alcohols—Alpha Terpineol, Dihydro-Alpha Terpineol
Secondary Alcohols—Borneol, Fenchyl Alcohol
Ketones—Camphor
Polymers—Diterpenes and Polyterpenes.

In view of this crude fraction containing so many different general chemical types of components, it is necessary to test and determine the disinfecting value of each general type if we are to intelligently write specifications for a steam-distilled pine oil that will have maximum disinfecting value.

Phenol Coefficient Value

In 1930 there was published in the *Industrial Journal*

* Before the Natl. Assn. of Insecticide & Disinfectant Mfrs., Chicago, June, 1935.

MOTH SPRAY

- - A penetrating liquid, deadly to all moth life. Pleasantly perfumed, easily used without fear of stain. Sold for years by jobbers because of its effectiveness and ability to give really good results.

Leaders

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"SINCE 1898"

FLY SPRAY

- - A high killing power material with a guaranteed Pyrethrum content. Special solvent oil, will not stain, evaporates completely. Letters from customers proclaim its effectiveness against other household insects as well.

Shipments under your own name and brand direct to your trade. We act as your factory and warehouse, leaving you free to devote your entire time to selling.

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LITHOGRAPHED TIN CANS

ANY QUANTITY—SOLID COLORS

1¾" SCREW
large opening—easy to fill

FOIL and FELT LINER
A sure gasket—preventing leakers

GOLD LACQUERED, ROUNDED EDGE TIN HANDLE
easy to handle and giving a quality appearance

The NEW VOGEL QUALITY 1 gallon oblong can is now available—lithographed in solid colors—WHITE—RED—YELLOW or GREEN—in any quantity.

Your labels pasted on these cans will give them the appearance of a lithographed can. The different colors give identity . . . memory—the coating gives visibility . . . attention value.

Special color coatings can be ordered in quantities of one thousand or more.

SANITARY DRIP MACHINE

Automatic—Reversible front or back drip—Non-rusting oxidized finish (nickel or chrome plated if desired)—Bottoms of copper not brass—Wicks included. Standard packing: Twenty-five to a carton.

Your name can be soldered or embossed on the face of this Drip Machine when purchased in quantities of 250 or more, at a slight additional cost.

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Established 1862

of Medicinal Research a series of articles entitled, "Studies in Disinfection and Sterilization."

Part III of this series entitled, "Composition of Essential Oils and Their Disinfecting Properties," written by Dr. V. Subrahmanyan, points out that the disinfecting powers of terpene componds are determined largely by the chemical constitution of the compound concerned. We might interpret this in terms of steam-distilled pine oil, by saying that the disinfecting powers of a steam-distilled pine oil depend largely upon the chemical components present in the product. Part II of this series of articles, entitled, "Chemical Constitution of Terpenes and Their Disinfecting Properties," written by Dr. C. K. De, reports the results of his work and a review of other work carried out to evaluate the disinfecting powers of some representative terpenes and of their derivatives, under controlled conditions, and to further study the relation of phenol coefficients to chemical composition. All phenol coefficients reported by Dr. De were determined by the Rideal-Walker method, using bacillus typhosus (Hopkins) as the test organism. While this method or any other method may be subject to some criticism, the values obtained by it serve to indicate the relative germicidal activities of the different substances tested. All of the terpenes tested by this method, being insoluble in water, were first emulsified by a mixture of pure sodium oleate and sodium carbonate. In the case of solid terpenes, they were first dissolved in a minimum amount of alcohol and the alcoholic solution emulsified in the same manner. De does not say what per cent of emulsifier was used, but we assume that a minimum amount was employed in all cases.

Dr. De reports phenol coefficients of a number of representative terpene hydrocarbons, alcohols, esters, oxides, phenols, aldehydes, ketones, and sesqui-terpenes. No work is reported done on the diterpenes or polyterpenes, probably because such substances are not pure compounds. Of the type of terpenes tested, we are interested only in those types found in appreciable quantities in the crude steam-distilled pine oil being discussed. We are interested, then, only in the hydrocarbons, alcohols and ketones. Let us discuss these tests and others on each general type of chemical component separately.

Terpene Hydrocarbons—Dr. De reports testing the efficiency of the terpene hydrocarbons—camphene, cymene, methene, pinene, phellandrene, and limonene or dipentene. With the exception of cymene, all of these hydrocarbons are reported having phenol coefficients of less than 1. Cymene was slightly higher, but it is of no interest to us because it is not present in crude steam-distilled pine oil, except possibly as a trace. This work on terpene hydrocarbons is summarized with the statement that the terpene hydrocarbons are practically non-germicidal and are of little or no value as disinfectants.

The work done on terpene hydrocarbons by the Hercules Powder Company confirms these findings. Phenol coefficient tests have been run on various types of terpene hydrocarbons and mixtures of these hydrocarbons and in each case we have found the phenol coefficient of such products to be less than 1. An interesting test on terpene hydrocarbons was made by adding paramenthane, a typical saturated terpene hydrocarbon, to a recognized quality steam-distilled pine oil in varying proportions, and determining the phenol coefficient of each mixture to determine the effect of the hydrocarbon on the phenol coefficient of the pine oil. We report the phenol coefficient results of these tests as follows:

Standard Quality Pine Oil	6.3
90% Pine Oil—10% Paramenthane	6.0
70% Pine Oil—30% Paramenthane	5.0
50% Pine Oil—50% Paramenthane	3.5

In each case the steam-distilled pine oil and the mixtures of steam-distilled pine oil and paramenthane were first emulsified so that the water miscible product contained 80 per cent of the pine oil-hydrocarbon mixture to be tested. From these tests, it is plain to see that as we add increasing amounts of terpene hydrocarbons to a standard quality steam-distilled pine oil, we decrease the phenol coefficient of the pine oil, indicating rather definitely that terpene hydrocarbons are of little or no value as disinfectants.

Terpene alcohols—In the crude steam-distilled pine oil we find two types of terpene alcohols; namely, tertiary and secondary alcohols. As stated previously, the tertiary alcohols are, as far as is known today, Dihydro-Alpha-Terpineol and Alpha-Terpineol. Secondary alcohols are borneol and fenchyl alcohol, with possibly small quantities of isoborneol existing in combination with the borneol. Dr. De reports testing eight different types of terpene alcohols, among them being tests on terpineol and borneol. He reports a phenol coefficient for terpineol of 6.0 and for borneol of 10.9. The work reported on alcohols is summarized by stating that it has been found in general that compounds containing a hydroxyl group, such as alcohols, have much higher phenol coefficients than the hydrocarbons.

The Hercules Powder Company has done quite a bit of work testing terpene alcohols. All of the phenol coefficient tests were run by recognized bacteriological laboratories. In these tests we have determined the phenol coefficients of alpha terpineol to be 6.3, borneol 4.6, fenchyl alcohol 5.2. It will be noted that our results for alpha terpineol check exactly the results reported by Dr. De. However, we have not been able to confirm the report on borneol. Our findings regarding the phenol coefficients of terpene alcohols in general confirm the report of Dr. De, in that we have found the terpene alcohols in general to have good disinfecting powers, being about ten times as strong as the terpene hydrocarbons.

Terpene Ketones—About the only terpene ketone found in crude steam-distilled pine oil in appreciable quantities is camphor. Dr. De reports testing three different types of terpene ketones, among them being a test on camphor, which he reports as having a phenol coefficient of 7. The ketones tested by Dr. De range in phenol coefficient from 7 to 10, indicating that the terpene ketones are very effective as disinfectants and probably a bit more efficient than the alcohols; however, the difference in efficiency between the alcohols and ketones is very small, so in general we may say that the terpene ketones and alcohols found in steam-distilled pine oil are about equal in disinfecting efficiency.

Terpene Phenols—Dr. De reports testing various types of terpene phenols. He reports certain terpene phenols, such as thymol, as having phenol coefficients as high as 27. He also points out that the phenol coefficient of the terpene phenols decreases as the unsaturation of the moleclule decreases and also as the number of active groups in the molecule increases (active groups are referred to as OH, CHO, CH_3O, or O groupings attached to the molecule). Therefore, depending upon the molecular structure, some of the terpene phenols and their derivatives are reported to have rather low phenol coefficients.

Carvacrol, the terpene phenol believed present in crude steam-distilled pine oil, is reported present in the original crude in quantities much less than 1 per cent. In a quality steam-distilled pine oil produced by straight fractionation of the crude, it would be questionable as to whether or not the phenol content could be raised to much above 2 per cent. Such a quantity of phenols is practically negligible and we believe would have very little effect on the phenol coefficient. We have had the phenol coefficient of fractions, wherein the phenols are concentrated, tested and find they are no higher than the terpene alcohols. The pure concentrated phenols from crude steam-distilled pine oil may have a high coefficient, but at the present time, such a product is not available in large commercial quantities, and, therefore, is of little commercial interest. What little is available, is obtained with difficulty and, must be sold at prices higher than bulk disinfectants would tolerate. For all practical purposes and for obvious reasons, the terpene phenols found in crude steam-distilled pine oil are not of much interest at the present time.

(*Turn to Page* 131)

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One of the many reasons why leading repackers and resellers prefer Solvay Para-dichlorobenzene is the fact that it is available in a wide variety of crystal sizes—thus meeting all particular needs. Carefully graded and uniformly dependable, it is made to satisfy the most exacting requirements as to quality.

For block manufacture as well as packing in shaker top cans, Solvay Para-dichlorobenzene has grown steadily in popularity. Moth killers or deodorants made with it show improved sales—better profits. Immediate deliveries made from stockpoints located throughout the country. Write today for samples and prices.

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SANITARY SUPPLIERS ELECT DAVIDSON

The thirteenth annual convention of the National Sanitary Supply Association was held at the Morrison Hotel, Chicago, June 12, 13 and 14. The business sessions were held in the English Room, at the Morrison, with Louis Herzog, president of the Association, presiding.

Ellis Davidson of Ellis Davidson & Co., New York, was elected president for 1935-36. Other new members of the board include E. S. Stanford, City Janitor Supply & Brush Co., St. Louis, vice president and Karl A. Dolge, C. B. Dolge Co., Westport, Conn., director. S. J. Bockstanz, Bockstanz Brothers Co., Detroit, was re-elected treasurer and E. C. Kratsch, of "Sanitation" Milwaukee, was re-elected secretary. Members of the board of directors who were re-elected were Louis Herzog, Riddiford Brothers, Chicago; J. H. Zucker, State Chemical Manufacturing Co., Cleveland; J. J. Hintz, Procter & Gamble Distributing Co., Cincinnati; William La Roche, Franklin Research Co., Philadelphia; J. H. Johnson, Rubon Wood Finishing & Products Co., Kansas City, Mo.; and Joseph Fuld, Fuld Brothers, Baltimore.

A number of manufacturers of sanitary supplies had exhibits in the meeting room. The exhibitors included Davies-Young Soap Co., liquid soaps, soap bases and floor waxes; Economy Mop Wringer Co., mop wringers; Schroeder & Tremayne, sponges and chamois; Armour & Co., soaps; James H. Rhodes & Co., sponges and chamois; Fuld Brothers, sanitary products; White Mop Wringer Co., mop wringers; Illinois Duster Co., dusters and brushes; U. S. Sponge Co.; Breuer Electric Manufacturing Co., electric sprayers; Soapitor Co., powdered soap dispenser; Rubon Wood Finishing & Products Co., mops, polishes and floor waxes; Paper Makers Chemical Corp., vegetable oil soap; Greenview Manufacturing Co., floor scrapers and window cleaners; Schaefer-Wetcher Co., mops and dusters; Progess Duster Co., mops and dusters; A. F. Dormeyer Mfg. Co., floor scrapers and window cleaners; and R. M. Hollingshead Corp., soaps, polishes, etc.

Among the interesting talks presented was one by D. R. Byerly, Procter & Gamble Co., on "Selection of the Proper Cleansing Materials." Mr. Byerly advised on selection of the proper type of cleansing agent for the various kinds of cleaning jobs encountered. "Office Building Maintenance" was the topic of G. R. Bailey, Albert H. Wetten & Co., and Roy Wilson, Ludwig Wilson Co., Chicago, reported on "An Experiment in Cooperation Among Janitor Supply Competitors." On the afternoon of the second day a "Floor Clinic" was arranged, with four speakers talking on maintenance of rubber floors, asphalt tile floors, masonite floors, and linoleum and cork floors.

The annual banquet was held on the evening of Thursday, June 13, in the Cameo Room of the Morrison.

◆

"Rhythm at Eight" is the title of a new radio program sponsored by Lehn & Fink, Bloomfield, N. J., to advertise "Lysol" disinfectant. Featured entertainers are Ted Husing, Ethel Merman, and Al Goodman's Orchestra.

NEW HOSPITAL SUPPLY FIRM IN SEATTLE

Featuring hospital supplies and producing a large line of new chemical products, B. & C. Scientific Products, Inc., has been incorporated at Seattle, Wash., and will start production in June. Factory space has been taken at 427 Ninth Ave., North, Seattle, and following alterations and improvements to this structure, which has 7,200 square feet of floor space, it will be equipped with technical laboratory facilities and manufacturing equipment. About a dozen workers will constitute the staff at the outset, and it is planned to have 30 persons on the payroll by the first of the year. Heading the new organization is Walter Brown, well known in Seattle as the president and general manager for a number of years of the Seattle and Rainier Valley Railway.

◆

Col. F. Aitken, managing director of Chas. Page & Co., London, who has been in United States for several weeks on one of his two annual trips, returned to England on the *S. S. Bremen*, May 28. Col. Aitken is widely known in the coal and petroleum by-product markets. His company is known throughout the world in handling tar products, benzol, coke and fertilizer materials.

◆

Sherwood Refining Company, Brooklyn, has just completed a new white oil plant at Warren, Pa., thereby doubling capacity. "Spraysene," their new hydrocarbon base, free from kerosene odor, will be produced in the new plant. Sales on "Spraysene" have gone ahead so rapidly, it is reported, that the company was obliged to enter into this extensive building program in order to take care of demand.

◆

Franklin Research Company of Philadelphia, is offering what they claim to be the first really waterproof water emulsion wax ever made. The improvement is now available in "Rubber-Gloss." It is claimed by the manufacturer that water has absolutely no affect upon their new material. It may be damp mopped an unlimited number of times without apparent effect, it is said.

◆

Davies-Young Soap Co., Dayton, Ohio, has just brought out a new liquid toilet "health" soap, under the name of "Dermasep". The new product is a combination of olive and coconut oils. In announcing "Dermasep" the Davies-Young Soap Co. calls attention to the demand that has been built up for the so-called "health" soaps.

◆

Chicago Sanitary Products Co. has appointed the J. L. Sugden Advertising Company to handle its account.

Patent
No. 1974132

No. 584R
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★ *They help you sell.* Your trade-mark colorfully lithographed on these POR-PAILS makes traveling advertisements of your containers—and when your product is used up the container remains in use as a handy pail keeping your *Brand name* PERMANENTLY *alive.*

Leading manufacturers are regularly using these sales-building, practical POR-PAILS for liquid soaps, disinfectants, insecticides, polishes, cleansers and other sanitary products, because they insure *product safety* and provide a *permanent advertising* at low cost.

Write for complete information and samples. No obligation to you. Our new catalog "MODERN STEEL CONTAINERS" sent upon request.

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180 MADISON AVE., NEW YORK

CLEANING MOTHPROOFED ARTICLES

Inquiries are frequently made as to the permancy of moth-proofing with sodium fluosilicate of carpets and other fabrics when sent to the laundry. In order to gain some information on this point, a piece of mohair was mothproofed by dipping it in a saturated solution of sodium fluosilicate. On drying, the mohair was cut up into three parts. One piece was dry-cleaned and a second piece was washed with soap and water. The third was kept as a check. Carpet beetle larvae were placed on the three pieces, as well as on an untreated piece.

About five weeks later, all of the larvae were dead on the piece that was mothproofed but not otherwise touched, and also on the mothproofed piece that had been dry-cleaned. On the piece that was mothproofed and washed with soap and water, the larvae lived some three weeks longer, while on the untreated portion all were still alive at that time.

Sodium fluosilicate is insoluble in organic solvents and it is therefore not surprising that dry-cleaning does not impair the efficiency of the mothproofing. Even though sodium fluosilicate is soluble in water, washing with soap and water did not destroy the mothproofing qualities, although it did slow up its action. The above conclusions would be even more justified in the case of clothes moth larvae, for they succumb much more readily than the hardy carpet beetles. S. Marcovitch. *J. Econ. Entomology* **28**, 495-6 (1935).

Socony-Vacuum Oil Co. has selected as a name for its new insecticide spray "Bug-a-Boo," based on returns from a popularity contest in which twelve names under consideration for the new product were submitted to a selected group. Following selection of a name, the next step will be to conduct a test in 153 cities to ascertain what selling appeal would be most effective. Three magazines will carry the advertising campaign through the peak season. The company expects to market through its 50,000 service stations as well as through the usual dealer outlets.

PINE OIL DISINFECTANTS

(*From Page* 127)

Diterpene and Polyterpenes—Diterpenes are a group of compounds having the general formula $C_{20}H_{32}$ and polyterpenes are a group of compounds containing two or more terpene molecules of the general type $(C_{10}H_{16})X$. Both of these materials are defined as groups of compounds and, therefore, are not what is generally known as pure compounds. They are not uniform materials and do not possess definite constant boiling points. In view of the inconstancy of these products, it is impossible to test and report consistent results for them. Viewing the products from the theoretical standpoint, we assume them to have very little or no disinfecting value because we know from their chemical formulas that they are not highly unsaturated products and do not contain many so-called active groups, which theoretically appear to be essential requirements of a compound if it is to be effective as a disinfectant.

Emulsification

All of the terpenes found in steam-distilled pine oil are, for most al practical purposes, insoluble in water

MANY of the processes employed in the refining of coal tar products have been developed by the Koppers companies. A competent technical staff is constantly at work to introduce further process refinements and to insure the high quality of all Koppers products. The Koppers laboratories are abreast of all new developments in the field of coal tar products. Their services are at your command.

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CRESYLIC ACID

98% to 100% STRAW COLOR

TAR ACID OILS

NEUTRAL HYDROCARBON OIL

(For construction aud maintenance, Koppers also produces: Roofing, Waterproofing, Dampproofing, Creosote, Tar Base Paints and Coatings, and Tarmac for driveways, roads, pavements, etc.)

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Vioflor—masks undesirable odors to such an extent that much smaller quantities of perfuming material are needed—a saving of 40% to 50% in perfuming cost.

Vioflor—acts as a fixative for the perfuming agent, saving loss of odor value.

Vioflor—permits the use of finer, higher priced perfumes at no increase in perfuming cost.

Vioflor is effective in treating—

Liquid Insecticides
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Send for a Sample to test in *your* product

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and, therefore, must first be emulsified in order to render them water-miscible. Various types of soap or soluble oils may be used as emulsifiers, depending upon the type of finished product required. The formulating of an efficient pine oil disinfectant demands, then, some consideration of the proper type and quantity of emulsifier to use and the emulsibility of the pine oil used. The potency of a pine oil disinfectant will be, in some part, dependent upon the stability and particle size of the emulsion.

Many bacteriologists claim that the death of bacteria is proceeded by absorption of the germicide. According to this theory a disinfectant is a "contact killing agent" and as such must come directly in contact with the bacterial if it is to be effective. Most disinfectants are used as very dilute solutions or emulsions in water and a maximum area of killing agent exposed would insure maximum contact. It is quite evident that the steam-distilled pine oil in a pine oil disinfectant emulsion must be homogeneously dispersed in the form of infinitely small particles or droplets in order to insure maximum disinfecting results. In other words, the phenol coefficient of a pine oil disinfectant emulsion, all things being equal, appears to depend directly upon the particle size of the emulsion. With this apparent relationship between the phenol coefficient and particle size, it is evident that the emulsibility of any steam-distilled pine oil is a factor influencing results and one to be considered.

The type and quantity of emulsifier used will influence the particle size of any emulsion. We have found in the case of soaps, that their order of effectiveness as steam-distilled pine oil emulsifiers is as follows:

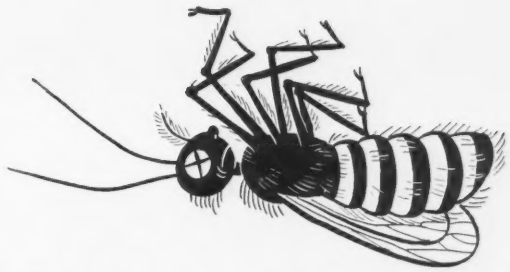
Linoleates
Oleates
Laurates
Palmitates
Stearates

For the present, we will disregard the emulsifiers and discuss only the emulsibility of steam-distilled pine oil, considering the efficiency of the emulsifier to be a constant.

If a substance is completely soluble in water, it does not require the aid of an emulsifier to render it miscible with water. A substance 75 per cent soluble would require only a little emulsifier to promote total miscibility. A substance 50 per cent soluble would require more emulsifier than one 75 per cent soluble, and a substance completely insoluble would require a maximum of emulsifier. The substance requiring the least emulsifier would be the most easily emulsified. The evidence indicates that the solubility in water is a measure of the emulsibility of any series of substances.

As stated previously, the major components of steam-distilled pine oil in which we are chiefly interested are the hydrocarbons, alcohols and ketones. Let us consider their solubility in water and in relation to this their emulsibility.

Dipentene, a typical unsaturated terpene hydrocarbon is soluble in water to the extent of about 0.3 grams per liter. The solubility of camphor, is approximately 1.8 grams per liter. Fenchyl alcohol has a solubility of about 1.3 grams per liter, borneol 0.6 grams per liter and alpha-terpineol 2.0 grams per liter, all at a temperature of 25°C. Transferring these solubility figures into terms of emulsibility, they indicate, using the same type and quantity of emulsifier, the hydrocarbons to be most difficult to emulsify, as compared to the other major components. The secondary alcohol, borneol, would be only slightly more emulsifiable than the hydrocarbons, fenchyl alcohol is more easily emulsified than borneol; camphor, is quite easily emulsified, and the tertiary alcohol, alpha-terpineol is emulsified more easily than any of these. Using these figures and this reasoning as a basis, it appears then, that a steam-distilled pine oil having a minimum content of hydrocarbons and a maximum content of alpha terpineol would be the easiest to emulsify. Such



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has proved to be the case. We have tested the emulsibility of various grades of steam-distilled pine oil, containing varying amounts of terpene hydrocarbons and alpha-terpineol, using a 50 per cent sulphonated castor oil as the emulsifier and a 1 per cent clear solution as the measure of particle size. The particle size of an emulsion forming a clear solution at a concentration of 1 per cent in water is much smaller than one forming a milky, opaque emulsion at the same concentration. We report emulsification tests on three steam-distilled pine oils representative of three different grades on the market today. The results of these tests are as follows:

Type of Pine Oil	*Terpineol Content*	*Terpene Hydrocarbon Content*	*Pine Oil Emulsified on Basis of Emulsifier*
Pine Oil (A)	50%	15%	33%
Pine Oil (B)	65%	10%	43%
Pine Oil (C)	75%	Less than 5%	54%

These tests show quite conclusively that Pine Oil (C) is more easily emulsified than Pine Oil (A) or (B) and therefore, using the same quantity and type of emulsifier, Pine Oil (C) forms emulsions having smaller particle size, thus assuring more intimate contact and better killing power. It is evident, then, from the standpoint of emulsification, that for disinfecting purposes, a steam-distilled pine oil should contain, as far as is economically possible, a minimum quantity of terpene hydrocarbons and a maximum of alpha-terpineol.

In regard to emulsifying steam-distilled pine oil disinfectants in water, it is interesting to note that the manner in which they are diluted with water affects the stability of the emulsion. In our laboratories, we made up the regular Hygienic Laboratory Pine Oil Disinfectant and diluted it in water 1:40. In one case we added the disinfectant to the water and in the other case the water was added to the disinfectant. These emulsions were allowed to stand and at the end of four days considerable difference was noted. Emulsions made by adding the disinfectant to water showed much less stability than those made by adding water to the disinfectant. In this respect, we suggest that all manufacturers of pine oil disinfectants include proper directions on their labels for diluting their product to produce best results.

Reduction of Surface Tension

Previously we pointed out that disinfectants are assumed to kill following direct contact and absorption. The time required to kill is an important factor and is dependent upon the rate of absorption of the disinfectant by the bacteria. In order to have rapid absorption, we must have rapid wetting of the bacteria by the disinfectant emulsion. Wetting time is dependent upon the surface tension of the emulsion or solution—the lower the surface tension, the quicker the wetting. Steam-distilled pine oil is a wetting agent and penetrant because when properly emulsified and added to water, it lowers the surface tension of the water. However, steam-distilled pine oils vary in wetting or lowering surface tension depending upon the chemical composition of the pine oil. A review of the surface tension lowering qualities of the various components is of interest.

DeWitt & Makens* report the results of their research in this field. They report on dipentene, terpinolene, pinene, camphor fanchyl alcohol, borneol, alpha-terpineol and combinations of dipentene and alpha-terpineol. The surface tension of pure water is reported as being approximately 72 dynes per centimeter. Dipentene is soluble in this water at 25°C. to the extent of about 0.3 grams per liter. This saturated solution of dipentene is reported as having a surface tension of about 71.5 dynes per centimeter. At the same concentration the surface tension of a solution of camphor is 65 dynes per centimeter. The same solution of fenchyl alcohol has a surface tension of 58.7 dynes per centimeter, a borneol solution about 57.5 dynes per centimeter, and an alpha terpineol solution at the same concentration, about 58.5 dynes per centimeter. From this we see that the various components tested at a concentration of 0.3 grams per liter, lower the surface tension of water as follows:

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and

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to

National Association

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MAY NOT GIVE A HIGH KILL

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When the flowers are weaker we use more of them.

One gallon of AN-FO No. 20 at all seasons equals 20 lbs. high test flowers.

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Dipentene	0.7%
Camphor	9.7%
Fenchyl Alcohol	18.4%
Borneol	20.2%
Alpha Terpineol	18.8%

By this data DeWitt & Makens* show quite conclusively that the terpene hydrocarbons have very little surface tension lowering value. It appears that as far as lowering surface tension is concerned, terpene hydrocarbons in steam-distilled pine oil are valueless and would be merely diluents. Going further into the problem, however, we find that the terpene hydrocarbons are not only diluents, but also retard the efficiency of the alcohols. DeWit & Makens report testing a solution of about 1.4 grams of alpha terpineol per liter of water. This solution has a surface tension of 44.1 dynes per centimeter. They then add 0.3 grams per liter of dipentene to this solution and determine the surface tension to be only 52 dynes per centimeter, after dissolving the dipentene showing that the addition of dipentene actually decreases the efficiency of the alpha-terpineol.

Alpha-terpineol is the most water soluble of all major steam-distilled pine oil components (2.0 grams per liter at 25°C.), and at maximum concentrations, the surface tension of the solution is 38.3 dynes per centimeter, just about one-half the surface tension of pure water. Because of its higher solubility, Alpha Terpineol is capable of effecting the largest decrease in surface tensions.

Summarizing the information presented here in regards to the disinfecting efficiency of steam-distilled pine oil, as affected by its composition, we may say:

Terpene hydrocarbons show little or no disinfectant value. They are the most difficult of all components to emulsify and aside from being practically of no value for lowering surface tension, they actually depress the action of the tertiary alcohols. It appears that terpene hydrocarbons have no place in a steam-distilled pine oil used as an emulsified disinfectant.

The terpene secondary alcohols, fenchyl alcohol and borneol, show good phenol coefficients and good surface tension lowering, but are more difficult to emulsify than the tertiary alcohol, alpha-terpineol.

The ketones, such as camphor, show good phenol coefficients and are almost as easily emulsified as the tertiary alcohols, but are poor surface tension reducers, as compared to the secondary and tertiary alcohols.

Alpha-terpineol shows a very good phenol coefficient, is the most easily emulsified of all components, and at a maximum concentration in water, it is the best surface tension reducer, and, therefore, the best wetting agent.

For maximum disinfecting efficiency, this data indicates that a steam-distilled pine oil should contain a maximum quantity of alpha terpineol and a minimum of hydrocarbons. Concentrated alpha terpineol, about 94 per cent pure is available commercially, but is never referred to as steam-distilled pine oil. Steam-distilled pine oils are available, however, containing as much as 80 to 85 per cent alpha terpineol and being practically free of hydrocarbons. As far as we know at the present time, such a pine oil would be, from an economical and performance standpoint, the most satisfactory steam-distilled pine oil for disinfecting purposes. It is easily emulsified with a minimum of emulsifier, has a good phenol coefficient and lowers surface tensions very effectively. A steam-distilled pine oil having these qualities would have a boiling range of about 5 per cent off at 218°C. to 95 per cent off at 222°C.

There is other information available pertaining to the efficiency of steam-distilled pine oil as a disinfectant against bacteria other than Bacillus typhosus generally used in the phenol coefficient tests, and also information regarding the effectiveness of steam-distilled pine oil for use on the body and for other various uses. Further data on these subjects will be presented at a future meeting.

* DeWitt & Makens—Jor. Amer. Chem. Soc. 54, 1932, 455.

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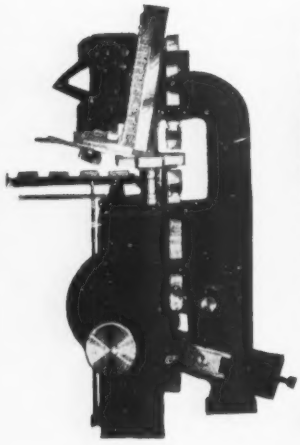

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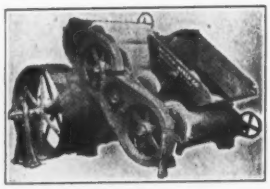

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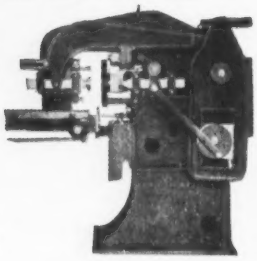

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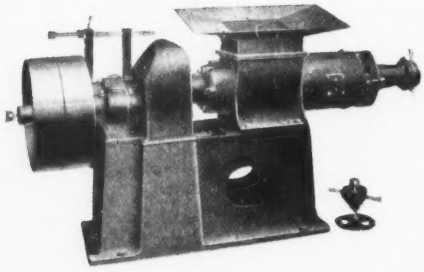

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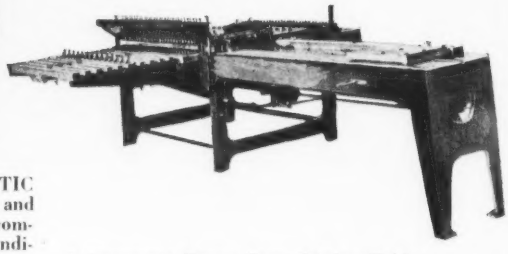

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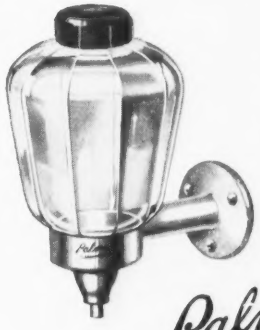

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We announce development of new type soap colors

PYLAKLORS

They have good fastness to alkali, light, tin, ageing.

The following shades are already available:

Bright Green	Dark Brown
Olive Green	Palm Green
Yellow	Golden Brown
True Blue	Violet

It will pay you to send for testing samples.

PYLAM PRODUCTS CO., INC.
Manufacturing Chemists, Importers, Exporters
799 Greenwich St. New York City
Cable Address: "Pylamco"

WHAT IS THE BEST METAL POLISH . . . for Use on a Rough Surface?

You will find the answer to this question on page 140 of the 1935 SOAP BLUE BOOK. The BLUE BOOK gives you a complete buying service on sanitary specialties,—tells you not only where to buy, but also what you should look for and what avoid in purchasing bulk sanitary specialties. Recognized experts tell you what their years of manufacturing experience have taught them about the quality of soap powders, liquid soaps, deodorizing blocks, disinfectants, polishes, etc.

Use Your BLUE BOOK!

Nu Fome Corp., New York, maker of "Nu Fome", a non-inflammable all-purpose cleaner for clothes, furniture, woodwork, etc., has just completed a test advertising campaign on the new product in Newark, N. J. Newspaper copy was used, and 80 per cent distribution was obtained in the city within five days. An eight ounce can of "Nu Fome", selling for 65 cents, makes a gallon of cleaning fluid.

Soap Manufacturies, Inc., 5201 Kenwood Ave., Chicago, announce the development of a rapid saponification method for the production of laundry soaps, soap flakes, and finished cakes of milled toilet soap from the raw materials to the finished product within two hours. This new process, which has been investigated and verified by Wurster & Sanger, Inc., is in daily commercial operation on a large scale at a Chicago plant which may be inspected by arrangement. It is stated that soaps made by this process have been on the market for several years.

An insecticide is composed of a solidified, finely distributed mixture of a molten carrier and derris root or pyrethrum blossoms. Herbert Schotte and Karl Goernitz. Canadian Patent No. 348,380.

Lien Chemical Co., sanitation engineers, Chicago, have taken new quarters at 3810 N. Cicero Ave. The new telephone number is Palisade 7330.

LE PYRETHRE FRANCAIS, by Prof. Jean Ripert. This 56-page booklet, written in French, gives much information about the industrial cultivation of pyrethrum, not only in Japan but in France as well, where experimental work has been going on since 1919. Methods of analysis and testing, action of solvents, estimation of pyrethrins, etc., are taken up at length, and much valuable data is made available to the French student of pyrethrum.

An extract of pyrethrum adjusted to 2.1 per cent pyrethrins in a commercial, highly refined petroleum distillate, was an efficient control of body lice on laboratory rats. The spray was applied by atomization, which did not injure the rats. Immersion caused injury. A five per cent dilution sprayed on occupied cages controlled bedbugs without injury to the rats. Edward M. Searls and Fred M. Snyder. *J. Econ. Entomology* **28**, 304-310 (1935).

Brooke, Smith & French, Inc., Detroit, has been appointed advertising counsel for the Park Chemical Company, Detroit, maker of "Parko" automotive and household polishing and cleaning compounds.

Armstrong Cork Co., Lancaster, Pa., is bringing out a new product, "Armstrong's" floor cleaner, a companion item to their "Linogloss Wax".

T. G. COOPER & CO.
INC.
47 North Second Street
Philadelphia

Import and Spot Lots of

Cresylic Acid
Commercial Olive Oil
Olive Oil Foots
Palm Oil
Castor Oil
Rapeseed Oil
Japan Wax
Caustic Potash
Carbonate of Potash
Bicarbonate of Potash

NEW AND REBUILT SOAP MACHINERY

SPECIAL
2—Glycerine Evaporators, double and triple effect

3—3 and 5 Roll Steel Mills
1—10" Houchin-Aiken Plodder
1—Automatic Power Cutting Table
1—Broughton Mixer, jacketed
2—10A Blanchard Mills
3—Soap Presses, Foot and Power
6—Filter Presses, sizes 6" to 36"
6—Granite Stone Mills, 2, 3, and 4 rolls
1—Jones Automatic Soap Press
4—Jacketed Vertical Crutchers
2—1,500 lb. Horizontal Crutchers
2—Hand Power Slabbers
2—Hand Power Cutting Tables
3—Houchin Chippers, Belt Driven

600 and 1,200 lb. Frames, Kettles, Pumps, Tanks, Filter Presses, Wrapping Machines, Tube Fillers, Closers, Crimpers, Dry Powder Mixers, Pulverizers, Grinders, Amalgamators, Mixers, etc.

Send for Complete List (Bulletin No. 15)
WE BUY AND SELL FROM SINGLE ITEMS TO COMPLETE PLANTS.

STEIN-BRILL CORPORATION
183 VARICK STREET, NEW YORK, N. Y.
Phone: WAlker 5-6892-3-4
Cable Address: "BRISTEN"

Where to buy

RAW MATERIALS AND EQUIPMENT

for the Manufacture of Soaps and Sanitary Products

NOTE: This is a classified list of the companies which advertise regularly in SOAP. It will aid you in locating advertisements of raw materials, bulk and private brand products, equipment, packaging materials, etc., in which you are particularly interested. Refer to the Index to Advertisements, on page 148, for page numbers. *"Say you saw it in SOAP."*

ALKALIES

Columbia Alkali Co.
T. G. Cooper & Co.
Dow Chemical Co.
Eastern Industries
Hooker Electrochemical Co.
Innis, Speiden & Co.
Mathieson Alkali Works
Niagara Alkali Co.
Solvay Sales Corp.
Jos. Turner & Co.
Warner Chemical Co.
Welch, Holme & Clark Co.

AROMATIC CHEMICALS

American-British Chemical Supplies
Compagnie Parento
Dodge & Olcott Co.
Dow Chemical Co.
P. R. Dreyer, Inc.
E. I. du Pont de Nemours & Co.
Felton Chemical Co.
Fritzsche Brothers, Inc.
Givaudan-Delawanna, Inc.
Magnus, Mabee & Reynard, Inc.
Merck & Co.
Monsanto Chemical Co.
Naugatuck Chemical Co.
Schimmel & Co.
Solvay Sales Corp.
A. M. Todd Co.
Ungerer & Co.
Van Ameringen-Haebler, Inc.

BULK AND PRIVATE BRAND PRODUCTS

An-Fo Manufacturing Co.
Baird & McGuire, Inc.
Chicago Sanitary Products Co.
Clifton Chemical Co.
Davies-Young Soap Co.
Eagle Soap Corp.
Federal Varnish Co.
Fuld Bros.
Hammond Paint & Chemical Co.
Harley Soap Co.
Hysan Products Co.
Hull Co.
Koppers Products Co.
Kranich Soap Co.
Palmer Products
Philadelphia Quartz Co.
John Powell & Co.
Geo. A. Schmidt & Co.
White Tar Co.
Windsor Wax Co.

CHEMICALS

American-British Chemical Supplies
Bowker Chemical Co.
Columbia Alkali Co.
T. G. Cooper & Co.
Dow Chemical Co.
E. I. du Pont de Nemours & Co.
Eastern Industries
General Chemical Co.
Grasselli Chemical Co.
Hooker Electrochemical Co.
Industrial Chemical Sales Co.
Innis, Speiden & Co.
Mathieson Alkali Works
Mechling Bros. Chemical Co.
Merck & Co.
Monsanto Chemical Co.
Niagara Alkali Co.
Ore & Chemical Corp.
Philadelphia Quartz Co.
Solvay Sales Corp.
Standard Silicate Co.
Jos. Turner & Co.
Victor Chemical Works
Warner Chemical Co.
Welch, Holme & Clark Co.

COAL TAR RAW MATERIALS

(Cresylic Acid, Tar Acid Oil, etc.)

American-British Chemical Supplies
Baird & McGuire, Inc.
Barrett Co.
T. G. Cooper & Co.
Innis, Speiden & Co.
Koppers Products Co.
Monsanto Chemical Co.
Reilly Tar & Chemical Co.
White Tar Co.

CONTAINERS and CLOSURES

American Can Co. (Tin Cans, Steel Pails)
Anchor Cap & Closure Corp. (Closures & Bottles)
Cin-Made Corp. (Paper Cans)
Continental Can Co. (Tin Cans)
Hinde & Dauch (Corrugated Fibre Products)
Maryland Glass Corp. (Bottles)
National Can Co. (Tin Cans)
Owens-Illinois Glass Co. (Bottles)
Wm. Vogel & Bro. (Tin Cans)
Wilson & Bennett Mfg. Co. (Steel Pails and Drums)

DEODORIZING BLOCK HOLDERS

Cin-Made Corp. (Paper)
Clifton Chemical Co.
Eagle Soap Corp.
Fuld Bros.
Hysan Products Co.
Palmer Products, Inc.

ESSENTIAL OILS

Compagnie Parento
Dodge & Olcott Co.
P. R. Dreyer Inc.
Fritzsche Brothers, Inc.
Leghorn Trading Co.
Magnus, Mabee & Reynard, Inc.
Schimmel & Co.
A. M. Todd Co.
Ungerer & Co.
Van Ameringen-Haebler, Inc.

(*Continued on page* 146)

PROFESSIONAL DIRECTORY

PEASE LABORATORIES, Inc.
Chemists, Bacteriologists, Sanitarians
39 West 38th Street
New York
Food, Drug and Cosmetic Problems—Compliance with Official Requirements—Meeting New and Anticipated Competitions with Improved and New Products

H. A. SEIL, Ph.D E. B. PUTT, Ph.C., B.Sc.
SEIL, PUTT & RUSBY, INC
Analytical and Consulting Chemists
Specialists in the Analysis of Pyrethrum Flowers, Derris Root, Barbasco, or Cube Root—Their Concentrates and Finished Preparations
ESSENTIAL OILS SOAP
16 East 34th Street, New York, N. Y.

STILLWELL AND GLADDING, Inc.
Analytical and Consulting Chemists
Members Association of
Consulting Chemists and Chemical Engineers
130 Cedar Street New York City

LLOYD A. HALL
Analytical and Consulting Chemist
Specializing in the analysis, development, investigation, and improvement of
Soaps, Disinfectants, Cosmetics, Drugs, Polishes and Sanitary Specialties.
RESEARCH—CONSULTATION
1415 W. 37th STREET CHICAGO, ILL.

KILLING
strength of Insecticides
by PEET GRADY METHOD
(Official I. & D. code method) and
PYRETHRINS in PYRETHRUM FLOWERS
(by Gnadinger's Method)
We raised and killed more than 1 million flies in the last 2 years
ILLINOIS CHEMICAL LABORATORIES, INC.
75 E. WACKER DRIVE CHICAGO, ILL.

COST SYSTEMS
Designed and installed for Soap Manufacturers and allied industries. Service in—Cost Analysis—Federal Taxation—Audits and Financial Statements.
TWENTY-FIVE YEARS' EXPERIENCE
LOUIS J. MUEHLE & COMPANY
CERTIFIED PUBLIC ACCOUNTANTS
DES MOINES IOWA

Skinner & Sherman, Inc.
246 Stuart Street, Boston, Mass.
Bacteriologists and Chemists
Disinfectants tested for germicidal value or phenol coefficient by any of the recognized methods.
Research—Analyses—Tests

SOAPS — DETERGENTS
Analyses *Development*
Consultation *Formulas*
HochstadterLaboratories
INCORPORATED
254 West 31st St. New York City

Entomological Testing Laboratories, Inc.
We offer you a medium for purchasing insecticides on an intelligent basis.
Entomological testing by the Peet-Grady method, and chemical examination of insecticides are available.
114 E. 32nd St. New York, N. Y.

It is required that fly sprays have a 95 per cent knock down on 1,000 flies in ten minutes and a kill of 60 per cent after 24 hours. In order to be sure that this product meets this standard, many manufacturers have periodical checks on their production. To know what they are selling is true economy.

Foster D. Snell, Inc.
Chemists-:-Engineers
305 Washington St.,
Brooklyn, N. Y.

Protect Your Products by
Patents—Trade Marks
All inventions submitted held confidential and given personal attention by members of the firm.
Form "Evidence of Conception" and instructions "How to Establish Your Rights"—Free
LANCASTER, ALLWINE & ROMMEL
Patent Law Offices
420 Bowen Building Washington, D. C.

RAW MATERIAL AND EQUIPMENT GUIDE

(*Continued from page* 144)

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MACHINERY

Blanchard Machine Co. (Soap Powder)
Ertel Engineering Corp. (Filters, Mixers, Bottle Fillers)
Anthony J. Fries (Soap Dies)
Houchin Machinery Co. (Soap Machinery)
Huber Machine Co. (Soap Machinery)
International Nickel Co. (Monel Metal)
R. A. Jones & Co. (Automatic Soap Presses and Cartoning Machinery)
Package Machinery Co. (Packaging)
Proctor & Schwartz (Dryers)
C. G. Sargent's Sons Corp. (Dryers)
Stokes & Smith Co. (Packing Machinery)
U. S. Bottlers Machinery Co. (Bottle Filling and Cleaning)

MACHINERY, USED

Consolidated Products Co.
Newman Tallow & Soap Machinery Co.
Stein-Brill Co.

MISCELLANEOUS

Anchor Cap & Closure Corp. (Metal Caps)
T. G. Cooper & Co. (Waxes)
Dobbins Mfg. Co. (Pails, Mop Wringers, etc.)
Exterminating Materials Co.
General Naval Stores Co. (Pine Oil-Rosin)
Hercules Powder Co. (Pine Oil and Rosin)
Industrial Chemical Sales Co. (Decol. carbon, Chalk)
Innis, Speiden & Co. (Fumigants and Waxes)
Murray & Nickell Mfg. Co. (Moth Proofing Liquid)
Pylam Products Co. (Lathering Agent)
Rohm & Haas Co. (Insecticide Base)

OILS AND FATS

T. G. Cooper & Co.
Eastern Industries
Industrial Chemical Sales Co.
Leghorn Trading Co.
Murray Oil Products Co.
Newman Tallow & Soap Machinery Co.
Theobald Animal By-Products Refinery
United Africa Co.
Welch, Holme & Clark Co.

PARADICHLORBENZENE

Dow Chemical Co.
E. I. du Pont de Nemours & Co.
Hooker Electrochemical Co.
Merck & Co.
Monsanto Chemical Co.
Niagara Alkali Co.
Solvay Sales Corp.
Jos. Turner & Co.

PERFUMING COMPOUNDS

Compagnie Parento
Dodge & Olcott Co.
P. R. Dreyer, Inc.
Felton Chemical Corp.
Fritzsche Brothers, Inc.
Givaudan-Delawanna, Inc.
Magnus, Mabee & Reynard, Inc.
Schimmel & Co.
Ungerer & Co.
Van Ameringen-Haebler, Inc.

PETROLEUM PRODUCTS

O'Connor & Kremp
Sherwood Petroleum Co
L. Sonneborn Sons.

PYRETHRUM AND DERRIS PRODUCTS

Insect Flowers and Powder, Pyrenthrum Extract, Derris Products

An-Fo Mfg. Co. (Extract)
R. J. Prentiss & Co.
Derris, Inc.
Hammond Paint & Chemical Co.
McCormick & Co.
McLaughlin, Gormley, King Co.
Murray & Nickell Mfg. Co.
Nico-Dust Mfg. Co.
S. B. Penick & Co.
John Powell & Co.
Sherwood Petroleum Co.

SOAP COLORS

Fezandie & Sperrle
Interstate Color Co.
Pylam Products Co.

SOAP DISPENSERS

Clifton Chemical Co.
Eagle Soap Corp.
Fuld Bros.
Palmer Products

SODIUM SILICATE

General Chemical Co.
Grasselli Chemical Co.
Mechling Bros. Chemical Co.
Philadelphia Quartz Co.
Standard Silicate Co.

SPRAYERS

Breuer Electric Mfg. Co.
Dobbins Mfg. Co.
Electric Sprayit Co.
Hudson Mfg. Co.
Lowell Sprayer Co.
Metal Specialties Mfg. Co.
Wm. Vogel & Bro.

TRI SODIUM PHOSPHATE

American Chemical Paint Co.
Bowker Chemical Co.
General Chemical Co.
Grasselli Chemical Co.
Victor Chemical Works
Warner Chemical Co.

SOAP FACTORY
for SALE or LEASE

Buy or rent this modern, fully equipped soap factory located within 100 miles of four leading Eastern Seaboard cities. Consists of office and two plant buildings, 95,000 sq. ft. factory floor space, with r.r. siding. Equipped with six large kettles, one medium size and one small one (6,000 gal.), twelve storage tanks, 100 soap frames, four toilet soap mills, modern soap flaking machinery, plodders, presses, cutter, slabber, etc. No other soap plant in locality. Raw materials nearby. Can be purchased or leased from the owners on an attractive basis but machinery will not be sold separately. Communicate with

Factory Owner : Box No. 450
Care SOAP, 254 W. 31st St., New York

HULL
POWDERED
METAL POLISH

enables the small metal polish manufacturer to produce the best quality product at a low cost.

THE HULL COMPANY
305 Washington Street
Brooklyn, N. Y.

When in CHICAGO
Sleep in Mountain Air
AT THE 46-STORY
MORRISON HOTEL Madison and Clark Streets
THE CENTER OF DOWNTOWN

In the unbroken silence of a Morrison Tower room, you sleep soundly all night; yet you are only an elevator ride from the heart of the business district.

SINGLE ROOM $2.50 UP
$4.00 Double
with Bath, Servidor and Circulating Ice-Water

Home of
TERRACE GARDEN
and
BOSTON OYSTER HOUSE

LEONARD HICKS, *Managing Director*

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MECHLING'S

PHILADELPHIA
CAMDEN, N. J.
BOSTON, MASS.

EST. MC 1869

SILICATE OF SODA

MECHLING BROS · CHEMICAL COMPANY

Modern Soap Perfumes

by FRANK H. SEDGWICK

Practical handbook on the science of soap perfumery. The author lays down the general principles which apply, and also offers a number of novel and useful suggestions on compounding. His experience in soap perfumery has been extensive in the British soap trade.

Priced, post free, at $1.50 per copy. Send check with order.

American Agents

MAC NAIR-DORLAND CO.

254 W. 31ST STREET NEW YORK CITY

LUXURIOUS COMFORT IN
BALTIMORE
MARYLAND
Stay at this fine hotel in the very heart of Baltimore where an eager desire to please awaits your every wish, where rooms are large and pleasant, where food is always superlatively good and where rates are surprisingly low
700 ROOMS
WITH BATH & RADIO
from $3 a day
H. N. BUSICK
Managing Director
LORD BALTIMORE HOTEL

SOAP DIES and STAMPS

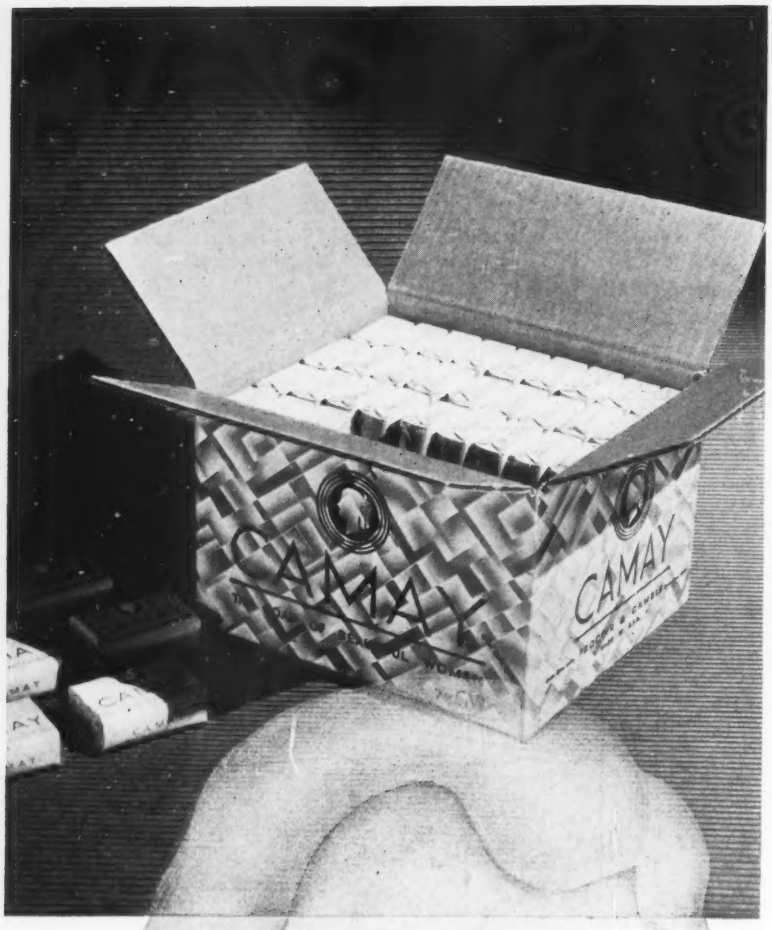
—for—
TOILET SOAPS
LAUNDRY SOAPS
BATH TABLETS
STAMPING

For Foot and Power Presses

Manufacture Backed by 35 Years' Experience

ANTHONY J. FRIES

717 Sycamore Street **Cincinnati, O., U. S. A.**



★ **It is only fitting that "the soap of beautiful women" should be packed in a beautiful shipping box. That is why the Camay shipping box was designed and produced in the Hinde & Dauch Package Laboratory. Don't forget that when your shipping boxes are attractively designed, dealers use them as display units, and sales increase as a result. A letter will bring you details telling you how you may use the services of the H & D Package Laboratory without effort or expense. The Hinde & Dauch Paper Co., 215 Decatur Street, Sandusky, Ohio.**

HINDE & DAUCH

★ *Corrugated Fibre Boxes*

PLANTS IN PRINCIPAL CITIES

Here and There

FROM a small town in South America, an inquiry comes to us as to where the proper equipment for manufacturing three or four hundred pounds of milled toilet soap per day might be purchased. Offhand, we thought of the nearest hardware store, but, on second thought, advised our friend to buy his soap and save the expense of headache tablets.

— ♦ —

The whys and wherefores of powdered soap, — types, grades, uses, specifications, possibilities, and methods of manufacture,—a detailed and informative article by Herbert Kranich, president of the Kranich Soap Company, will be published in the July issue of SOAP.

— ♦ —

The daily cleaning, scouring and polishing of 4,000,000 square feet of floor space in a single group of buildings is quite a job. How they keep Rockefeller Center,—otherwise known as Radio City,—New York, clean and bright, and what cleansers and soaps are used to do the work,—this giant cleaning job will be described in the next issue of SOAP.

— ♦ —

The next three dollars you win playing golf, bridge, or pinochle, pin to a ticket with your name and *home* address, and send it to SOAP, 254 West 31st St., New York. We will see to it that you receive a copy of SOAP at your home every month for a year,—you will receive your copies where you can read them at leisure, and where they will not invariably be missing when you want them.

— ♦ —

And for those who are advertising-minded, we desire to repeat once more that SOAP is a member of the A.B.C., — Audit Bureau of Circulations, — which counts and verifies paid circulation,—and that of all the commercial trade papers in the chemical, soap, drug, cosmetic, insecticide, and allied fields, SOAP is the only A.B.C. member. Ten papers which should be A.B.C. members, but only one actually a member,—SOAP. Strange,—isn't it?

CHARABOT & CO.

Quality Essential Oils

GRASSE, FRANCE

OUR "Essence Selectionnees des Alpes" essential oils are a group of high quality, but moderately priced products, particularly adapted to soap perfumes.

This group includes:

ASPIC THYME
PETITGRAIN
LAVENDER ROSEMARY

Trial Samples on Request

M. NAEF & CO.

Aromatic Chemicals

GENEVA, SWITZERLAND

IRIS 1927

For Soap

A new inexpensive and exceptionally fine soap scent of an Orris-Ionone character.

IRIS 1927 is distinguished by a powerful, but smooth note—ideal for perfuming soaps.

A trial Pound at $4.50

Sole U. S. Agents

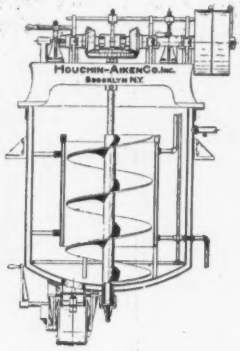
UNGERER & CO.

13-15 West 20th St.

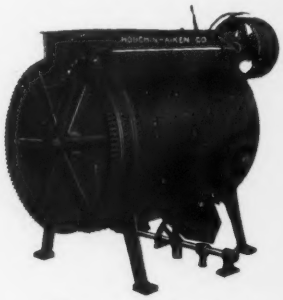
NEW YORK

NEW and *USED*
HOUCHIN SOAP MACHINERY

Perfection Crutcher
Sliding Gate Valve



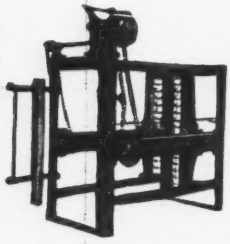
Perfection Crutcher Cross
Section View Plunger
Type Valve



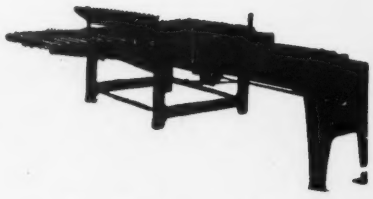
Horizontal Crutcher

Empire State
Press

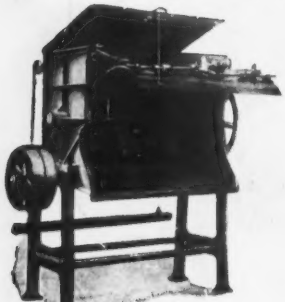
Standard
Soap Frame



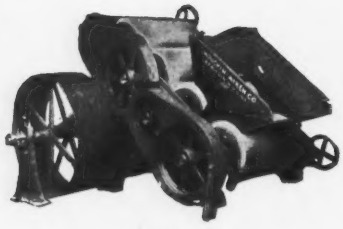
Automatic Power
Slabber



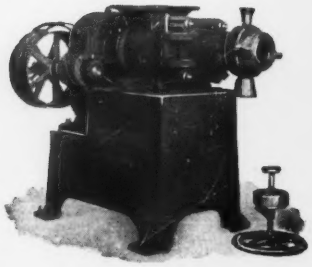
Automatic Power Cutting
Table



Ideal Amalgamator



4-Roll Mill
Mills built with 3 to 12 Chilled
Iron or Granite Rolls



Spur Gear 10″ Screw Plodder
Plodders furnished with 2½″
to 12″ screws

Write Us For Information Regarding MILL-LESS Method for Making Toilet Soap

HOUCHIN MACHINERY CO., Inc.

FORMERLY HOUCHIN-AIKEN CO., INC.

HAWTHORNE, NEW JERSEY